8533.99.7

Every Man his own Gauger:

WHEREIN

Not only the Artiſt is ſhown a more Ready and Exact Method of *GAUGING* than any hitherto Extant. But the moſt Ignorant, who can but read *Engliſh*, and tell twenty in Figures, is Taught to find the Content of any ſort of Cask or Veſſel, either full, or in part full; and to know if they be right ſiz'd.

ALSO

What a Pipe, Hogſhead, *&c.* amounts to at the common Rate and Meaſure they Buy or Sell at. With ſeveral uſeful Tables to know the Content of any Veſſel by. Likewiſe a Table ſhewing the Price of any Commodity, from one Pound to an Hundred weight, and the contrary. To which is added,

The Art of Brewing Beer, Ale, Mum; of Fining, Preſerving and Botling Brew'd Liquors, of making the moſt common Phyſical Ales now in uſe, of making ſeveral Fine *Engliſh Wines.*

The Vintners Art of Fining, Curing Preſerving and Rectifying all ſorts of Wines, of making Artificial Wines, Diſtilling of Brandy and Spirits from Malt, Molaſſes, *&c.*

Together with

The Compleat Coffee-Man, Teaching how to make Coffee, Tea, Chocolate, Content, and the Richeſt, Fineſt Cordials, *&c.*

Of great uſe for common Brewers, Victuallers, Vintners, Wine-Coopers, Diſtillers, Strong-water-men, Coffee-men, and all other Traders.

By *J. LIGHTBODY.* Philomath.

London, Printed, and Sold by *A. Baldwin* near the *Oxford*-Arms in *Warwick-lane*. Price 6 *d.*

The TABLE.

To Brew as good Mum as Brumſwick 45
To make Cyder, and other Liquors of Fruits, &c. 46
To Bottle Cyder, and make Goosberry Wine 48
To Fine French, Spaniſh, & Ippocras Wine 49
To cure Ropy, Muddy, and thick Wine 49
To cure the Pricking of French, Rheniſh, or Spaniſh Wine 50
How to preſerve Clarret and regain its colour 50
Prevent Souring of French Wines, and help them 51
To help Sour Spaniſh Wines 51
To help Stinking Wines 51
To rectify old Decay'd Wine, and recover Flat Wine 51
To help diſturb'd French Wine 52
Cure Spaniſh, and Rheniſh of Fret 52
Scent a Cask for Wine, or Cyder 52
To make Couſlip Wine 52
To make Scurvy-gras's Wine, and Mead 53
To make Artificial Claret 54
—— —— —— Malaga 55
To make Cordial Peſtilential and true Dr. Stephen's Water 56
To make Treacle, and Cinnamon Water 56
To make right Iriſh Uſquebah 57
To make Spirit of Elderberries for many Diſeaſes 57
To make Cherry Wine 57
To make Wormwood Wine 58
Diſtilling Spirits and Brandy from Malt 58
To make a Liquor of Molaſſes from whence to draw a good Spirit 59
To make Cock-Ale, and Broom Ale 60
Drink againſt Scurvy, alſo Butler's Ale 61
To make Coffee, Tea, and Chocolate 62
To make Chocolate Cakes, and Content 63
To make Ratefia, Limonade, and all ſorts of Fruit Wines 64
To make Rack and Rum 65
To make Punch, or Flip 66
Tryon's Way of Brewing Ale and Beer 66

THE TABLE.

Wort to Gauge in Coolers, or Backs pag. 2
A Table of Contents of a Square Tun, from 1 to 20 Feet Square, and 100 Parts 6
To know if Measure, and Cask be right 8
To Gauge a Beer Barrel, or Kilderkin 12
—— A Hogshead 13
—— A Butt standing 14
Names and Contents of Beer and Ale Vessels 15
Vintners Distillers &c. may Gauge full, or not full Casks and what drawn out 16
A Table of Segements 20
To Gauge a Hogshead of Wine 21
——— A Pipe of Wine 22
——— A Pipe standing 23
A Table of Gallons of Wine or Brandy in a standing Pipe on every Inch 24
To Gauge a Tun standing 25
A Table shews how much a Tun holds of Wine or Brandy on every Inch in Depth 26
To Gauge a different Pipe of 126 Gallons used in London 27
Vintners, &c. may know the Contents of a Pipe, Tun, or Barrel, &c. at the Common Rate and Measure, Selling or Buying, from 1 s. the Quart to 2 s. 6 d. increasing by 2 d. a Quart. 28
Price of Spirits and Brandy 32
A Table of the Price of any Commodity, from 1 l. to 100 and the contrary of it 34
A Table of the Content of Cylinders in Ale Gallons, and Hundredth Parts, from 12 to 60 Inches Diameter, and to 8 Inches in Depth 36
To Brew Beer, Ale, and Mum 42
To Clear and Fine Beer, and keep it from Sowering 44
To Bottle Beer & Ale, and make Scurvey-grass Ale 45

To

A

BOOK OF KNOWLEDGE.

Of GAUGING.

THIS being a buſineſs which concerns every Man who Sells, and Buys ſuch Liquors as are liable to pay Duty to the Queen, as well as otherwiſe, I ſhall endeavour to make it as plain as poſſibly the Nature of the Thing will allow.

It is common for every Man who buys any Liquors, to examine the Quality of it, but is obliged to take the Sellers Word for the Quantity, by reaſon he is not ſo competent a Judge therein, as he may be of the other: But without doubt every Man is deſirous to know how much, as well as what he has bought; and queſtionleſs, ſometimes a Man Pays for more than he has delivered to him, tho' at the ſame time he pays for no more than what he has bought, and ought to have deliver'd to him.

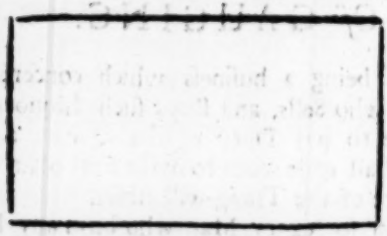
To prevent ſuch Inconveniences or Loſſes, it is proper the Buyer as well as the Seller, ſhould underſtand how to *Meaſure* or *Gauge* ſuch Quantities as they buy in the Cask; and becauſe every Man is not ſo well vers'd in

Arithmetick as the Art of Gauging requires, I ſhall ſet down ſuch eaſy Rules as may ſute the meaneſt Capacity, and I ſhall begin with a Common Brewer.

CHAP. I.

How a common Brewer may Gauge his own Worts in the Cooler, or Back, ſo that he may know his Charge.

Firſt, YOU are to find the Area, or what quantity your Cooler, or Back holds upon one Inch in depth, which muſt be found in manner following.



Suppoſe a Square Cooler be in length 206 Inches, and 3 tenth parts of an Inch, and in breadth 153 Inches, and 2 tenth parts of an Inch, you muſt Multiply 206.3 the Length of the Cooler by 153.2 the Breadth, and the Product divide by 282, or Multiply by .00355, and the Quotient, if you Divide, or the Product, if you Multiply, is how many Gallons of Worts, your Back holds upon every Inch in Depth. Now having found the Area of your Cooler, or the Content upon one Inch in Depth, the greateſt part of the work is done, the remaining part being only to Multiply that Area by the Inches and Parts, the Back is in depth of Liquor, and the Product is the Number of Gallons and Parts the Cooler has in it. Note,

Note. *That the Area being once found, you are to inſert it in a Book, and will have occaſion to find it no more ſo long as that Cooler laſts or continues in the ſame form; but to uſe the ſame conſtant Multiplier for its proper Cooler.*

Example.

The Cooler's Length is	206.3
——— *Breadth is*	153.2
The Product of theſe two is	31605.16
The Proper Multiplyer is	— .00355
The Area	112.1983180

You are always to prick off ſo many Figures to the Right-hand of the Product, as there are Figures prickt off in both Multiplicator, and Multiplicand, as you may ſee in the foregoing work; the Product of the Length and Breadth has 2, and the proper Multiplier is in number 5, which is all Decimal Parts, which makes 7 in all, therefore I have prickt off 7 Figures to the Right-hand, which is only the Fraction, or part of a Gallon; and the 3 Figures beyond the prick to the Left-hand are ſo many Gallons; ſo that the Area of the foregoing Back is 112 Gallons, and 19 hundredth parts of a Gallon; for the firſt two Figures beyond the Prick, to the Right, are moſt ſignificant, as you may find explain'd at large in my *Gauger, and Meaſurers Companion.*

Note, *That* .75 *is* 3 *quarters of a Gallon,* .50 *the half, and* .25 *one quarter of a Gallon, ſo that* .19 *in the foregoing Example is ſomething leſs than the quarter of a Gallon, and more than the eighth part of a Gallon.*

So much ſhall ſuffice for the Gauging of Square Backs, and ſhall proceed to Round and Oval Coolers, there being ſcarce any other form uſed, the Triangle being altogether needleſs.

Of Gauging Round Coolers.

If it be a Cooler that is wider at the top than bottom, or at the bottom than top, you are, when it is empty, to take a Line and extend from the one ſide of the top to the other, ſo that it may croſs the Center or Middle of the Circle, and apply it ſo extended, to your Rule, ſetting down how many Inches and tenth parts of an Inch it cuts on the Rule, and ſo likewiſe extend your line to the bottom, ſetting it down in like manner; when ſo done, you are to add both theſe Dimenſions together, and take one half of the Sum for the Diameter of the Cooler.

Example.

Suppoſe a round Cooler was 64.2 *at top, and* 56.3 *at bottom, the Sum is* 120.5 *the half whereof is* 60.2, *which is the Mean Diameter of the Round Cooler.*

Now to find the Area of this Round Cooler, you are to Multiply the Diameter of it by it ſelf (*i. e.*) 60.2 by 60.2, and the Product thereof Divide by 359 or Multiply by .00278, and the Quotient or Product is the Area in Ale-Gallons, the which you are to inſert in your Book as aforeſaid.

Suppoſe a Round Cooler's Dimenſions to be according to the foregoing Paragraph, that is, the Mean Diameter to be 60.2,

The Product of the Diameter is	3624.04
The proper Multiplyer is	.00278
The Area is	10.07

The which you are to Multiply by the Number of Inches and Parts, your Wort is in depth, and the Product is what your Cooler contains in Ale Gallons.

Example.

You dip with your Rule in the common dipping place, and find there is 16 *Inches and* 2 *tenth parts of an Inch Wet, you Multiply your wet Inches by your Area, or your Area by the*

wet

wet Inches, and the Product is the number of Gallons, and Parts contain'd in your Cooler.

The Area is	10.07
Wet Inches	16.2
	2014
	6042
	1007
	163.134

The number of Gallons in this Cooler is 163, *and the eighth part of a Gallon.*

Of Gauging an Oval Cooler.

You muſt apply your Line or Rule to the Length of the Oval, and ſet down how many Inches and Parts it is, and in like manner to the Breadth, then add them together, and take half the Sum for the Mean Diameter, the which you muſt Multiply, or Divide, as in the Round Cooler, and the Quotient or Product is the thing required.

By reaſon ſome Men will reckon it too tedious, and others may not rightly apprehend the former Rules, I ſhall ſet down a Table, by which you may by Inſpection (having taken the Dimenſions by the Rule) find the Area, and Content of a Tun or Back.

In the City of *London* the common Brewers Backs are extraordinary large, and it would be too tedious to find how many Gallons a Tun or Cooler holds, the Dimenſions being taken in Inches in Length and Breadth, therefore I ſhall here compoſe a Table by which you may know how many Barrels, Kilderkins, Firkins, Gallons, Pottles *&c.* a Back or Tun holds upon one Inch deep, from one Foot, to 10 Foot Square.

	Parts.		Parts.
A Barrel contains	100	A Pottle	0139
A Kilderkin	50	A Quart	0069½
A Firkin	25	A Pint	0035
A Gallon	0278		

A Table shewing the Content of any Square Tun, from one Foot to 20 Foot Square in Barrels, and 100 Parts.

Feet of Length and Breadth.	XX.	XIX.	XVIII	XVII	XVI.
	B.pts	B.ptr.	B.pts.	B.pts.	B.pts.
20	5.67	5.39	5.11	4.82	4.53
		5.12	4.85	4.58	4.31
			4.59	4.34	4.08
	I.			4.09	3.85
1	0.01	II.			3.63
2	0.02	0.05	III.		
3	0.04	0.08	0.12	IV.	
4	0.05	0.11	0.17	0.22	V.
5	0.07	0.14	0.21	0.28	0.35
6	0.08	0.17	0.25	0.34	0.42
7	0.09	0.19	0.29	0.39	0.49
8	0.11	0 22	0.34	0.45	0.56
9	0.12	0.25	0.38	0.51	0.63
10	0.14	0.28	0.42	0.56	0.70
11	0.15	0.31	0.46	0.62	0.78
12	0.17	0.34	0.51	0.68	0.85
13	0.18	0.36	0.55	0.73	0.92
14	0.19	0.39	0.59	0.79	0.99
15	0.21	0.42	0.63	0.85	1.06
16	0.22	0.45	0.68	0.90	1.13
17	0.24	0.48	0.72	0.96	1.20
18	0.25	0.51	0.76	1.02	1.27
19	0.26	0.53	0.80	1.07	1.34
20	0.28	0.56	0.85	1.13	1.14
	I.	II.	III.	IV.	V.

A Table shewing the Content of any Square Tun, from one Foot to 20 Foot square in Barrels, and 100 Parts.

XV.	XIV.	XIII.	XII.	XI.	
B.pts.	B.pts.	B.pts.	B.pts.	B.pts.	
4 25	3.97	5.68	3.40	2.12	20
4.04	3.77	3.50	3.23	2.96	19
3.82	3.57	3.31	3.06	2.80	18
3.61	3.37	3.13	2.89	2.65	17
3.40	3.17	2.95	2.72	2.49	16
3.19	2.97	2.76	2.55	2.33	15
	2.78	2.58	2.38	2.18	14
		2.39	2.21	2.02	13
VI.			2.04	1.87	12
0 51	VII.			1.71	11
0.59	0.69	VIII.			
0.68	0.79	0.90	IX.		
0.76	0.89	1.02	1.14	X.	
0.85	0.99	1.13	1.27	1.41	10
0.93	1.09	1.24	1.40	1.56	11
1.02	1.19	1.36	1 53	1.70	12
1.10	1.29	1.47	1.65	1.84	13
1.19	1.39	1.58	1.87	1.98	14
1.27	1.48	1.78	1.91	2.12	15
1.36	1.58	1.81	2.04	2.26	16
1.44	1.68	1.92	2.17	2.41	17
1.53	1.78	2.04	2.29	2.55	18
1.61	1.88	2.15	2.42	2.60	19
1.70	1.98	2.26	2.55	2 83	20
VI.	VII.	VIII.	IX.	X.	

Feet of Length and Breadth.

The

The uſe of the foregoing Table will appear by the following Example.

Q. 1. I would know the *Area*, or what the Tun holds upon an Inch, which is 6 Foot ſquare every way?

Look where you find 6 in the ſide of the Table, and VI. in the Top or Bottom, and where they meet in a Square, you will find 0.51, which ſhews that a Tun 6 Foot Square holds upon an Inch 0. Barrel .51. parts of a Barrel, which is half a Barrel and a little more, this being Multiply'd by the Inches in depth, you have the Content in Barrels and Parts.

Q. 2. A Tun is 9 Foot one way, and four the other, what is the Content of one Inch Deep.

Find 9. Foot in the ſide of the Table, and IV. in the Bottom, and where they meet in a Square, you will find 0.51. the ſame of the other.

CHAP. II.

How Victualers may know whether they have their right Meaſure of Drink from the Brewer, and whether their Casks be falſe or true?

FOR thoſe who underſtand Figures, I ſhall inſert an infallible Rule, whereby they ſhall eaſily Diſcover a Fraud, if there be ſuch, and for thoſe who do not underſtand Figuring, (or ſuppoſe they be illiterate) ſhall exactly know what is in their Butts, Hogſheads, Barrels, Kilderkins, or Firkins, and how much is wanting of what they ſhould have, and that in the Plaineſt and eaſieſt Method imaginable.

I ſhall firſt begin with him who underſtands Figures; for tho' he has Learned no further than *Multiplication*, he is ſufficiently qualify'd for this.

Suppoſe

Suppoſe he was to Gauge a Barrel of Beer, he is firſt to put his Rule in at the Bong, downright, and obſerve how many Inches and Parts the Inſide of the Bong Cuts on the Rule and Inſert it on Paper, then apply a Line to the Head in manner following, you are to find the Center of the Head by a pair of Compaſſes, then extend your Line from one ſide of the Circle to the other, croſſing the Center, and how many Inches and Parts that is, ſet down; likewiſe the Inches muſt be diſtinguiſhed from the Parts by a prick betwixt the number of Inches, and the number of Parts.

When you have done according to the foregoing Directions, you muſt Subduct the Inches and Parts, the Head is in Diameter, from the Bong Diameter, and the remainder you muſt Multiply by .7, and that Product you muſt add to the Head Diameter, placing the Head Diameter one place towards the Left-hand, further than the Product, as you may ſee in the following Example.

Example.

Suppoſe the Bong Diameter to be 23. 1, and the Head Dianeter to be 20.5 length 26.

Bong Diameter.	23.1
Head Diameter.	20.5
	2.6
	.7
	1.82
	20.5
The Mean Diameter.	22.32

The foregoing Number 22.32 is the Mean Diameter of the Beer Barrel, which mean Diameter you muſt Multiply by itſelf, and Divide the Product by 359, or Multiply it by .00278, and the Quotient orProduct Multiply by the Length, and the laſt Product is the Content of the Cask.

Example.

Example.

The Mean Diameter is 22.32
22.32

446
6696
4464
4464

498.1824
.0027

3995459
34872768
9963648

1.36504707
2

In Length 819028243
2730094144

35.49122387

The Content of this Cask is 35 Gallons, and almo
an half. Always obſerve to prick off ſo many Figures to th
Right-hand in the Product, as there is Figures or decima
Parts prickt off in both Multiplicator and Multiplican
and thoſe Figures to the Left-hand of the prick is the nu
ber of Gallons, and the reſt is only ſo many parts of a Ga
lon, as you may ſee in the Direction to a common Brew

This Rule in finding the Content muſt be uſed in Ba
rels, Kilderkins, Firkins, Hogſheads and Butts; but to ea
you of all this Trouble of *Multiplication*, I ſhall hereafte
inſert a Table which will be very uſeful and eaſy for yo

In the next place I ſhall direct how any Man that unde
ſtands nothing of Figures, ſhall Gauge his own Drink, b
the help of nothing but a Rod of Inches and Quarters, a
a Cork, ballanced with a piece of Lead at the end of it,
much as may ſink it, ſo as the top of the Cork may ſw
eq

equal with the top of the Liquor, trying it in a Pail of Water, then tye a ſtring to it, making a Hook in the middle of the top of the Cork to fix it to, and uſe it as hereafter mentioned.

Note, *That in a Barrel of Beer there is* 36 *Gallons, and in Ale but* 32.

The ſeveral Dimenſions of Casks are as follows.

A Butt ought to be in length 50 Inches, the ledges beyond each Head being one Inch, and one quarter of an Inch, which makes 2 Inches and an half, each Head being 3 quarters of an Inch thick, which amounts to 4 Inches in all, the which muſt be taken from the whole length, and the remainder is 46 Inches in length of Liquor. But you need have no reſpect to the length of the Liquor, but to the length of the Cask, for if the Butt be 50 Inches in length, and 31 Inches at the Bong, and 25 at the Head, the Cask is true.

Note, *That the Dimenſions of the following Caks muſt be taken to the outſide of the Bong, and from the inſide of the underſtaves, to the outſide of the upper ſtaves at the Head.*

	Inches.	
A Barrel muſt be in Length	31	
Diameter at the Bong	23	*and an half.*
Diameter at the Head	21	
A Kilderkin muſt be in length	24	*and an half.*
Diameter at the Bong	18	3 *quarters*
Diameter at the Head	16	*and an half.*
A Firkin muſt be in length	19	
Diameter at Bong	15	
Diameter at Head	13	

The Rod which you are to uſe in taking theſe Dimenſions muſt be at leaſt four Foot long, divided into Inches and Quarters, with which Rod you are firſt to try the length, and then put your Rod ſtreight down at the Bong, and if 23 and half appear at the outſide of the Bong, the Barrel is right in that part; then apply the Rod to the Head, exactly in the middle, and if the outward Edge of the

Stave cut 21 on the Rule, it is a true Barrel. This is only to know whether the Veſſel be right or not: But I ſhall in the following matter direct you an eaſier way.

Now as to the knowing what quantity of Drink you have, or what you want of the quantity you ſhould have, uſe the following Method.

For a Barrel of Beer.

Put your Rod exactly down at the Bong, then throw in your Cork, holding the ſtring in your Hand, and it will firſt ſink below the Liquor and Yeaſt, and then it will riſe to the face of the Liquor; then extend your ſtring ſo as you may not pull the top of the Cork above the Liquor, and fix the ſtring with your Thumb to the Rule, taking them both together out of the Barrel, and when you have wiped the Yeaſt off the Rule, what ever Figure appears where the top of the Cork touches, there is ſo many Inches of Liquor; if the Liquor wet 15 Inches and three Quarters, there is juſt 3 Firkins in the Barrel, and for every quarter of an Inch it is under, you looſe half a Gallon of Drink, for 7 Inches downward.

If the Drink wet 11 Inches and an half there is half a Barrel, or 18 Gallons in the Barrel, and for every Quarter of an Inch you want in ſo much being wet, the loſs of half a Gallon of Drink.

If the Drink wet 9 Inches, and almoſt a quarter, then there is in the Barrel one Firkin or 9 Gallons, and for every half Inch you want of being wet ſo far for 4 Inches downward, your loſs is one Gallon and little more.

For Gauging a Kilderkin of Beer.

If the Liquor wet 18 Inches and an half, it is right, and if it be an Inch under, it wants half a Gallon, if 2 Inches and a Quarter, it wants a Gallon.

If the Drink wet 9 inches and a Quarter, there is in the Kilderkin one Firkin, and for every three Quarters of an Inch it is under, it wants one Gallon.

For

For Gauging a Hogſhead of Beer.

If the Liquor wet 26 Inches on the Rule, then there is 54 Gallons, or a Hogſhead of Drink therein, and if it wet 25 and a quarter, there is but 53 Gallons therein, and for every three quarters of an Inch it wants of wetting 25 Inches, there is a Gallon loſs for 3 Inches downward.

If the Liquor wet 20 Inches and a quarter, then there is 46 Gallons in the Hogſhead; and for every half Inch it wants of wetting ſo far there is 9 Pints wanting, for two Inches downward.

If the Liquor wet 18 Inches on the Rule, then there is 41 Gallons in the Caſk, and for every Inch it wants of wetting 18 Inches, there is 2 Gallons, and 3 quarts wanting for 6 Inches downward.

If The Liquor wet 12 Inches on the Rule, then there is 24 Gallons in the Caſk, if 10 and a quarter, there is 19, if 9 and an half, there is 17, if 8, there is 13, if 7 and a quarter there is a 11 Gallons in the Caſk, if it wet 5, there is 6 Gallons in theCaſk, and if it wet one Inch and three quarters, there is but one Gallon in the Caſk.

To Gauge a Butt lying.

A Butt muſt be as before ſpecified, that is the length 50 Inches from the one end of the Staves to the other, the Bong muſt be 31, and the Head muſt be 25, meaſuring the Bong and Head, from the bottom of the Caſk, oppoſite to the Bong, to the outſide of the Staves at the Bong and Head, and if the Dimenſions be ſo, the Caſk is right.

Put your Rod down ſtreight at the Bong, and if the Liquor wet 31 Inces, there is the true Content in the Caſk, that is 180 Gallons, and if it want two Inches of wetting ſo far, there is 2 Gallons of Drink wanting; and if it want 3 Inches of wetting ſo far, there is wanting of Drink 4 Gallons and an half; if it wet 27 Inches on the Rod, there is juſt 101 Gallons in it; and for every Inch it wants for 2 Inches downward, there's 2 Gallons

and an half of Drink wanting, and for every quarter of an Inch thence downward for 6 Inches, there is a Gallon wanting; If there be wet 21 Inches, then there is in the Cask 80 Gallons, and for every Inch not wetting ſo far for 2 Inches, there is 4 Gallons and half wanting.

If the Liquor wet 19 Inches, then there is in the Cask 71 Gallons, and for every Inch it wants of wetting ſo far there is 5 Gallons of Drink wanting for 2 Inches downward; if the Liquor wet 16 Inches, there is in the Cask 56 Gallons and an half, and for every Inch it wants, for 3 Inches downward, there is 5 Gallons wanting; if the Liquor wet 12 Inches, there is 36 Gallons and an half in the Cask, and for every quarter of an Inch for 6 Inches downward it wants of wetting ſo far, there is 1 Gallon of Drink wanting; if the Liquor wet 6 Inches on the Rule, there is 12 Gallons therein of Beer, and if it wet 2 on the rule there is 2 Gallons therein.

To Gauge a Butt ſtanding.

Put your Rod ſtreight down at the head of the Butt to the bottom of the ſame, and if the Liquor wet 46 Inches there is the true Content of the Butt, or 108 Gallons of Beer therein; if it wet 45 and an half, there wants a Gallon, and ſo for every half Inch it wants of wetting 46 Inches on the Rule for 8 Inches downward, there is a Gallon of Drink wanting; if the Liquor wet 38 Inches on the Rule, there is 92 Gallons in the Butt; if it wet 37 on the Rule, 89 Gallons and an half in the Cask; if 36 on the Rule, 87 Gallons in the Cask; if 35 Inches on the Rule, then there is 85 Gallons in the Cask; and for every Inch it wants of wetting 35 on the Rule, for 25 Inches downward, there wants two Gallons and an half of Drink.

If the Liquor wet 10 Inches on the Rule, there is 21 Gallons in the Cask, and for every Inch it wants of weting ſo far for two Inches downward, there is 2 Gallons and an half wanting of Liquor, and from thence downward there

is

is for every half Inch it wants of wetting 8 Inches, one Gallon wanting.

All the foregoing Casks may be Measured most easy and exactly, with a little care and pains in the use of the Rule and Cork, that is, in putting the Rule straight down into the Cask, and taking care when your Cork is thrown into the Barrel, that you do not extend the string so as to pull the Cork above the Liquor, nor let the string be too slack.

Having told you in the foregoing matter how to know whether a Cask holds the true Measure it ought to hold, by the Length, Head and Bong; I shall now shew you an easier way, and as sure as the other.

You must put your Rule down at the Bong slantways to the undermost edge of the Head, and if 34 Inches and a quarter appear at the inside of the middle of the Bong, to the Right or Left-hand that is a true Butt; and if 29 appear at the same place in a Hogshead it is true; and if 25 appear in a Barrel it is true; and if 23 appear, in a Kilderkin; and 16 appear in a Firkin, they are true.

The Names and Contents of Beer and Ale Vessels.

A Beer Barrel holds	36	*Gallons.*
An Ale Barrel	32	
A Beer Kilderkin	18	
An Ale Kilderkin	16	
A Beer Firkin	9	
An Ale Firkin	8	
A Butt of Beer is	108	
An Hogshead	54	

CHAP.

CHAP. III. *How Vintners, Wine-Coopers, Diſtillers, and Strong-water-men, may Gauge any Cask, either full, or part full, and to know how much is in a Cask, or how much is drawn out.*

I Shall neither Diſcourſe of the neceſſity nor uſefulneſs of the thing, the Traders themſelves being ſatisfied thereof, but ſhall, as nigh as poſſibly I can, direct how every man may Gauge his own Liquors, either by the Pen and Rule, or by the Rule of Inches alone, the latter being as exact as the former, and a great deal more eaſy.

The Contents of ſeveral Wine Casks uſed in England.

A Tun of Wine is	252	*Gallons.*
A Pipe, or Butt is	126	
A Tierce is	42	
A Tercion is	84	
An Hogſhead is	63	
A Runlet is	18	

A Canary Pipe is 116 and almoſt a half. A Brandy Hogſhead is 57 and 1 third.

To begin with him who underſtands Arithmetick, you are to take the ſeveral Dimenſions of your Cask in manner following.

Firſt, Meaſure with your Rule (which muſt be at leaſt 5 Foot long) the length of your Cask, and ſet down with your Pen how many Inches and Parts, then Meaſure how much the Staves go beyond the Heads, which I belive in a Hogſhead may be one Inch and an half, which being double for both ends, amounts to 3 Inches; then for the thickneſs of each Head you may find by piercing of a hole and putting in a Nail, which muſt be made crooked at the Point; then when you have found the thickneſs of one Head, double it, and add the Sum to the 3 Inches the Ledges was beyond the Head, which I ſuppoſe to be in all 4 Inches

ches and an half; which 4 and an half you muſt ſubduct from the whole length, and the remainder is the length of the Liquor, or of the Casks inſide from head to head.

Then put the Rule in at the Bong ſtreight down to the bottom, and ſee how many Inches and Parts appear at the middle of the inſide of the Bong, and ſet that down; in like manner apply your Rule to the Head, and obſerve how many Inches it is in Diameter from inſide to inſide, croſſing the middle of the Head, and likwiſe ſet that down.

When you have taken the Dimenſions as before directed, you are to Subſtract the Head from the Bong, and the Remainder Multiply by .7 adding the Product to the head Diameter, in manner following, that is, place the head Diameter one place towards the Left-hand further than the Product, then add them together, and prick off all the Figures to the Right-hand, except two, which two to the Left-hand beyond the Prick, is ſo many Inches, and the reſt to the Right is but ſo many parts of an Inch.

Then you muſt Multiply this Number by it ſelf, and the Product you muſt Divide by 231, or Multiply by .0043, and the Quotient or Product Multiply by the length, and the Product is how many Gallons and Parts is in the Cask if it be full, or how many Gallons of Wine the Cask will hold? obſerving always to prick off as many Figures to the Right-hand, as there is Figures prickt off to the Right, in both Multiplyer and Multiplicand.

Example.	*Inches*	
The Bong Diameter is	26.	0
The Head Diameter is	22	3 *Parts*
The Remainder is	3.	7
The Multiplyer		7
The Product	2.	59
The Head Diameter is	22.	3
The Mean Diameter	24.	89

24.89
24.89
22401
19912
9956
4978
619.5121
.0043
18585363
24780484
2.66390203
The Length is 32
532780406
799170609
85.24486496

The Content of the foregoing Cask is juſt 85 Gallons, and almoſt one quarter of a Gallon, the firſt two Figures in the Decimal Parts to the Right-hand being of more value by 10 times than all the reſt; for as I ſaid before, in Brewing, that 25 is the one quarter of a Gallon, and 50 the one half, and .75 the three quarters, ſo you ſee here that the Figures to the Right-hand is .24 Decimals, which does not want much of .25, the one quarter of a Gallon.

The foregoing Rule you are to uſe in all Casks, only obſerve that you prick off ſo many Figures as there is in both the Numbers Multiplied, and for a Cask much Boulging Multiply by .75 inſtead of .7, and in caſe it be a Cask which is ſhort and thick, in form of a hard Ware Cask, which is very rare to be found, you are to Multiply by .6 but the foregoing Multiplier .7 will ſerve for moſt Casks, if not all, uſed by Vintners.

If it ſo fall out that you have a Cask part full, and would deſire to know how much is in the Cask, and how much is drawn out, you muſt firſt know what the whole content of the Cask is, by the foregoing Rule, and then work according to the following Rule. We

We ſhall ſuppoſe the Cask to be a Hogſhead lying, whoſe content is 63 Gallons of Wine, the Bong Diameter of it is 25 Inches, and there is of Liquor in the Cask 16 Inches; now to know how many Gallons of Wine is therein, you muſt add two Cyphers to the wet Inches, let them be what Number they will, and Divide the ſame by the Bong Diameter, obſerving that if the remainder be above half the Diviſor, to add one more to the Quotient, and look for what Number you have in your Quotient in the following Table, and over-againſt it, and under V. S. you will find a Number, the which being found Multiply by the Content, and you have exactly how many Gallons and Parts is in the Cask, the firſt two Figures to the Left-hand being the Gallons, and the reſt you are to prick off for Parts.

Example.

The Content of a Cask is	63
The Bong Diameter is	25
The wet Inches is	16

25)16.00(.64
150
100

The Number I find in the Table over againſt	64
My Quotient, and under V. S. is	.6759
Multiply by the Content	63
	20277
	40554
Remaining Liquor	42.5817

There is in the Cask 42 Gallons and an half of Wine.

This is the moſt common and eaſy way I can preſcribe, and will come nigh enough the Truth in Boulging Casks, tho' the leſs they are Boulging, the truer the work will be.

A Table of Segments.

V.S		V.S		V.S		V.S	
1	.0017	99	.9983	26	.2066	74	.7934
2	.0048	98	.9952	27	.2178	73	.7822
3	.0087	97	.9913	28	.2292	72	.7708
4	.0134	96	.9806	29	.2407	71	.7503
5	.0187	95	.9813	30	.2523	70	.7477
6	.0245	94	.9755	31	.2640	69	.7360
7	.0308	93	.9692	32	.2759	68	.7241
8	.0375	92	.9625	33	.2878	67	.7122
9	.0446	91	.9554	34	.2998	66	.7002
10	.0520	90	.9480	35	.3119	65	.6881
11	.0598	89	.9402	36	.3241	64	.6759
12	.0680	88	.9320	37	.3364	63	.6636
13	.0764	87	.9236	38	.3487	62	.6513
14	.0851	86	.9149	39	.3611	61	.6389
15	.0941	85	.9059	40	.3731	60	.6265
16	.1033	84	.8967	41	.3860	59	.6140
17	.1127	83	.8873	42	.3986	58	.6014
18	.1224	82	.8776	43	.4112	57	.5888
19	.1323	81	.8677	44	.4238	56	.5762
20	.1424	80	.8576	45	.4364	55	.5636
21	.1527	79	.8473	46	.4491	54	.5509
22	.1631	78	.8369	47	.4618	53	.5382
23	.1737	77	.8263	48	.4745	52	.5255
24	.1845	76	.8155	49	.4873	51	.5127
25	.1955	75	.8045	50	.5000	50	.5000

The

The foregoing Rules are only fit for ſuch as underſtand Figures, and conſequently altogether uſeleſs to thoſe who do not; but the following Rule ſhall be uſeful to both, and not in the leaſt inferior to the former in exactneſs, tho' a great deal more eaſy, and ſooner done.

You ſhall uſe the ſame Inſtrument for Wine, as you did for Ale, that is, a Rod about 5 Foot long, divided into Inches and quarters; but will have no occaſion for the Cork, which is directed to be uſed in Ale, by reaſon there is no Yeaſt upon Wines, or Brandies.

To Gauge an Hogſhead of Wine.

Put your Rule ſtreight down at the Bong, and if the Wine wet 25 Inches on the Rule, there is 63 Gallons of Wine in the Cask; if 23 and an half, there wants a Gallon; if the Wine wet 22, there wants three Gallons and an half, if it wet 21 Inches on the Rule, there is 58 Gallons in the Cask; if 20 Inches and an half, there is 57 Gallons; if 19 Inches and 3 quarters, there is 55 Gallons; and for every Inch it wants of wetting 19 Inches, for 3 Inches downward, there is 3 Gallons wanting of 55 Gallons. If the Wine wet 16 Inches and an half, there is 46 Gallons in the Cask, and for every Inch it wants of wetting 16 Inches, for 8 Inches downward, there is 3 Gallons and an half wanting of 46 Gallons. If the Wine wet 8 Inches and an half on the Rule, there is 18 Gallons in the Cask; and for every Inch it wants of wetting ſo far for 3 Inches downward, there is wanting 3 Gallons of Wine. If the Wine wet 5 Inches and an half, there is 9 Gallons in the Cask; if 4 and three quarters, there is 7 Gallons; if 4 Inches, there is 5 Gallons and an half, and if there be 2 Inches wet, there is 2 Gallons of Wine in the Cask. So much for a Hogſhead: We ſhall next proceed to a Pipe, theſe two being the moſt common Veſſels uſed by Vintners.

To Gauge a Pipe of Wine.

A *Canary* Pipe contains 116 Gallons, tho' ſome ſay 120; but I have try'd the Content of ſome Pipes, and found it to be 116 and almoſt an half; but we ſhall here ſuppoſe it to 120 Gallons, and proceed in the work as follows.

Put your Rule in at the Bong, as aforeſaid, and if the Wine Wet 28 Inches and three quarters, there is 120 Gallons in the Cask; if 27 Inches and an half, there is but 119 therein; if 26 Inches and three quarters, there is 118 Gallons; if 26 Inches, there is 116 Gallons and an half; if 25 Inches wet, there is 114 and an half; if 24 Inches wet, there is 112 Gallons and an half; if 23 and an half wet, there is 111 Gallons; and if 23 wet, there is 109 Gallons in the Pipe, and for every Inch it wants of wetting ſo far, for 4 Inches downward, there is 5 Gallons wanting. If the Wine wet 19 Inches on the Rule, there is in the Cask 89 Gallons, and for every Inch is wanting thence downward for 4 Inches, there is 6 Gallons wanting of 89 Gallons; if 15 Inches be wet on the Rule, there is 65 Gallons in the Cask, and for every Inch it wants of wetting 15 on the Rule, for 3 Inches downward, there is 6 Gallons and a half wanting of 65 Gallons. If it wet 12 Inches, there is 45 Gallons in the Cask; and if it wet 11 Inches, there is 39 Gallons and an half therein, and from thence downward for 2 Inches, there is for each Inch 5 Gallons and and an half wanting of 39 Gallons. If the Wine wet 9 Inches on the Rule, there is 28 Gallons, and for every Inch it wants thereof, for 3 Inches downward, there is 5 Gallons wanting of 28 Gallons. If the Wine wet 5 Inches on the Rule, there is 9 Gallons in the Cask; if it wet 4 Inches there is 6 Gallons; if it wet 3 Inches, there is 4 Gallons therein; and if it wet 2 Inches, there is 2 Gallons in the Pipe.

As

As to Tierces and Runlets, their Contents are ſo various, that there can be no certain Rule ſet down for the Gauging of them; only that if the Head Diameter of a Tierce be 16 Inches and a quarter, and the Bong 18 Inches and a quarter, and the length 34 and an half, the Tierce contains 42 Gallons.

If the Head Diameter of a Runlet be 15 Inches and 3 quarters, and the Bong 17 and a quarter, and length 31, the Content of the Runlet is 29 Gallons and an half.

Note, *That Brandys, Strong-waters, Cyder, Perry, Metheglin, Mead, &c. are all Meaſured by Wine Meaſure.*

To Gauge a Pipe ſtanding.

This may be very uſeful for Diſtillers, and particularly for thoſe in the Country, that being the moſt common Veſſel uſed by them.

Suppoſe the Content to be 116 Gallons, I ſhall here ſet down a Table, by which you may know how much Liquor is in the Pipe, at every Inch in Depth; by putting your Rule ſtreight down to the bottom of the Veſſel, and ſeeing how many Inches the Liquor wets on the Rule, and oppoſite to the number of Inches in the firſt Column, you will find in the ſecond Column the number of Gallons and Parts.

Example.

Suppoſe there be 16 Inches wet on the Rule, you look for 16 in the firſt Column, and over againſt it in the ſecond, you will have the Number of Gallons and Parts, *viz.* 36 Gallons and 3 Pints.

A Table ſhewing how many Gallons and Pints of Wine or Brandy a Pipe ſtanding holds upon every Inch.

Inc.	Gal.	Pi.	Inc.	Gal.	Pi.
1	2		25	59	4
2	4	1	26	62	
3	6	2	27	65	
4	8	1	28	67	
5	10	3	29	69	3
6	12	1	30	72	2
7	14	4	31	75	
8	17		32	77	5
9	19	3	33	80	
10	21	6	34	82	3
11	24		35	85	
12	26	4	36	87	4
13	29		37	90	4
14	31	3	38	92	6
15	33	5	39	95	
16	36	3	40	97	
17	39		41	99	2
18	41	4	42	102	
19	44		43	104	
20	46	4	44	106	1
21	49	3	45	108	1
22	52		46	110	1
23	53	3	47	112	3
24	57		48	115	

To

To Gauge a Tun *ſtanding.*

The Content of the Tun of Wine is 252 Gallons, and it is a Veſſel very much uſed in the Diſtillery, both for Spirits and low-wines; Therefore I have ſet down a Table, by which you may know the *Content* of every Inch in depth, uſing it in the ſame manner as the foregoing Table for a Pipe.

Some diſtillers in the City of *London* weigh their Veſſels when full, which I look upon, and doubtleſs it is, a great trouble; it being none of my Buſineſs to doubt the exactneſs of it, here I ſhall inſert what weight they allow to ſome quantities, and what weight they allow for the Cask.

For half an Hogſhead, which is 31 Gallons and an Half, they allow two Hundred, one quarter and 11 Pound for Cask and Liquor, allowing one Quarter and 22 Pound for the Cask.

For a Puncheon, they allow, Cask and Liquor, 6 Hundred, one Quarter and 2 Pound.

For a *Canary* Pipe, 8 hundred, 2 quarters, and 17 Pound.

For a Butt or Pipe, holding 126 Gallons, they allow for Butt and Liquor 9 Hundred, one quarter and 17 Pound.

For a Hogſhead they allow 4 Hundred, 2 Quarters, and 22 Pound.

This is but a vulgar and uncertain Eſtimation, for ſome Spirits are lighter than others; for the higher the Spirit, the lighter the Quantity.

The following and foregoing Tables are grounded upon both Reaſon and Art; and if any Artiſt will be at the pains to try each Inch ſeverally, he will find them ſo, and conſequently he muſt own that they are moſt uſeful.

A Table shewing how much Wine or Brandy a Tun holds upon every Inch in depth.

Dep.	Gal.	Pi.	Dep.	Gal.	Pi.
1	4	6	23	131	
2	9	2	24	138	2
3	14	6	25	144	
4	19	6	26	151	
5	24	7	27	156	2
6	30		28	164	
7	35	4	29	169	4
8	41	3	30	175	1
9	46	4	31	181	
10	52	6	32	186	4
11	58		33	193	1
12	64		34	199	2
13	70		35	205	1
14	76		36	210	
15	81	7	37	215	2
16	88		38	221	
17	94		39	226	6
18	100		40	231	4
19	106		31	236	4
20	113		42	242	
21	118	2	43	246	
22	126		44	252	

To Gauge another ſort of a Pipe, which holds 126 *Gallons moſt uſed in* London.

Dep.	*Gal.*	*Pi.*	*Dep.*	*Gal.*	*Pi.*
1	2	1	25	65	2
2	4	2	26	68	
3	6	4	27	70	7
4	8	6	28	73	2
5	11	1	29	76	
6	13	4	30	78	6
7	16		31	82	
8	18	6	32	84	4
9	21		33	87	2
10	23	3	34	89	6
11	26	3	35	92	1
12	28	7	36	95	
13	31	4	37	97	7
14	34		38	100	
15	36	4	39	103	
16	39	1	40	105	7
17	42		41	108	
18	44	7	42	111	
19	47	5	43	113	1
20	50	2	44	115	7
21	53		45	118	
22	56	1	46	120	
23	59		47	122	1
24	61	5	48	124	

Theſe Tables are all done by one and the ſame Rule.

As for the other Veſſels uſed by *Diſtillers*, they are ſo various that there can be no certain Rule ſet down for the Gauging of them by an *Inſtrument*, the only way being to do it by Figures, as I have taught in the foregoing Diſcourſe.

Having Treated as much as is requiſite of *Gauging*, I ſhall now proceed to the ſeveral Prizes of greater and leſſer Quantities, from a Quart to a Gallon, and from thence to a Tun; and likewiſe from the Price of a Quart to that of a Tun, both in Ale and Wine Meaſure, which will be of great uſe to all who deal therein.

Alſo I ſhall take notice of ſomething of Weights, whereby having the Price of one Pound, you may know what the Hundred comes to, and the contrary.

How Vintners, Diſtillers, Strong-water-men and Victuallers may know how much a Tun, Pipe, Hogſhead, or Barrel &c. amounts to at the common Rate, and Meaſure they Sell or Buy the ſame, from one Shilling the Quart, to two Shillings and ſix Pence, increaſing by 2 d. a Quart.

Firſt, a Tun of Wine is 252 Gallons, or 1008 Quarts at one Shilling the Quart, amounts to 50 l. 8 s.

s.	d.		l.	s.	d.
At 1	2	amounts to	58	16	00
At 1	4	amounts to	67	04	00
At 1	6	amounts to	75	12	00
At 1	8	amounts to	84	00	00
At 1	10	amounts to	92	08	00
At 2	0	amounts to	100	16	00
At 2	2	amounts to	109	04	00
At 2	4	amounts to	117	12	00
At 2	6	amounts to	126	00	00

Secondly,

Secondly, A Pipe is 126 *Gallons, or* 504 *Quarts, at one Shilling the Quart, amounts to* 25 *l.* 4 *s.*

s. d.	l.	s.
At 1 2 amounts to	29	08
At 1 4 amounts to	33	12
At 1 6 amounts to	37	16
At 1 8 amounts to	42	00
At 1 10 amounts to	46	04
At 2 0 amounts to	50	08
At 2 2 amounts to	54	12
At 2 4 amounts to	58	16
At 2 6 amounts to	63	00

Thirdly, A Hogſhead is 63 *Gallons, or* 252 *Quarts, at one Shilling the Quart, amounts to* 12 *l.* 12 *s.*

s. d.	l.	s.
At 1 2 amounts to	14	14
At 1 4 amounts to	16	16
At 1 6 amounts to	18	18
At 1 8 amounts to	21	00
At 1 10 amounts to	23	02
At 2 0 amounts to	25	04
At 2 2 amounts to	27	06
At 2 4 amounts to	29	08
At 2 6 amounts to	31	10

Fourthly, A Pipe or Butt of Ale or Beer is 108 *Gallons, or* 432 *Quarts, at* 2 *d. a Quart, amounts to* 3 *l.* 12 *s.*

d.	l.	s.
At 4 amounts to	07	04
At 6 amounts to	10	16
At 8 amounts to	14	08
At 10 amounts to	18	00
At 12 amounts to	21	12

Fifthly, A Hogshead is 54 *Gallons, or* 216 *Quarts, at* 2 *d. a Quart, amounts to* 1 *l.* 16 *s.*

d.	l.	s.
At 4 amounts to	03	12
At 6 amounts to	05	08
At 8 amounts to	07	04
At 10 amounts to	09	00
At 12 amounts to	10	16

Sixthly, A Barrel of Beer is 36 *Gallons, or* 144 *Quarts, at* 2 *d. a Quart, amounts to* 1 *l.* 4 *s.*

d.	l.	s.
At 4 amounts to	02	08
At 6 amounts to	03	12
At 8 amounts to	04	16
At 10 amounts to	06	00
At 12 amounts to	07	00

Note, *That a Butt is* 3 *Barrels of Beer, and a Hogshead is one Barrel and an half.*

Seventhly, A Barrel of Ale is 32 *Gallons, or* 128 *Quarts, at* 2 *d. a Quart, amounts to* 1 *l.* 1 *s.* 4 *d.*

d.	l.	s.	d.
At 4 amounts to	02	02	08
At 6 amounts to	03	04	00
At 8 amounts to	04	05	04
At 10 amounts to	05	06	08
At 12 amounts to	06	08	00

It will not be amiss to hint a little at such Measures as Tankards and Pots used in Publick Houses, I have taken the pains to Gauge a Pot and Tankard such as are commonly used, and find them to hold, according to the Rules of Gauging, 1.5 which is one Pint, and an half, so that I suppose there may be 6. of these in a Gallon, by the

the aſſiſtance of a careful Tapſter, who always takes care, by the help of a thing commonly call'd Nick and Froth, to allow for Lakage and Workage: But we ſhall only allow here 5. and an half of theſe Pots to a Gallon. Now the Barrel of Beer is 36 Gallons, or 198 Pots, at two Pence a Pot, amounts to 11. 13 s. And ſo proportionably for a greater or leſſer quantity; as a Pipe or Hogſhead. A Pipe amounts, at two Pence a Pot, to 4 l. 19 s. And a Hogſhead to 2 l. 9 s. 6 d. So the Victuallers may ſoon compute whether they gain or looſe, if they can but compute how many Barrels they ſell a Week, one Week with another thro' the Year, and what Charges they are at in Houſe-keeping, Servants Wages and Houſe-rent, which may eaſily be done.

Suppoſe the Charge in Houſe-keeping to be 20 Shillings a Week, and Servants Wages 4 Shillings a Week, Houſe-Rent 26 Pound a Year, which is 10 Shillings a Week, all this amounts to one Pound 14 Shillings a Week. We ſhall ſuppoſe you pay to your Brewer for Beer *per* Barrel, 1 *l.* 2 *s.* and for Ale 19 *s.* The profit of a Barrel of Beer is 11 Shillings, and of a Barrel of Ale 10 Shillings; now you muſt either ſell 2 Barrels of Beer, and as much of Ale *per* Week, or elſe you looſe by your Trade. I ſhall ſay no more of this, but leave every Man to his own Humour, and ſhall return to my former buſineſs.

It is uſual for Diſtillers to ſell greater or leſſer quantities for uncertain Prizes, according as the Chapman and they can agree, therefore it will not be unneceſſary to lay down a Method whereby they may know if the Price of the ſmall quantity be agreed on, what the great quantity amounts to, or the contrary.

Suppoſe he ſells to his Chapman a quantity of Spirits at 5 Shillings and 5 Pence a Gallon, to be ſure the Buyer will be deſirous to know what that comes to a Quart, ſo that he may know how to ſell it again by Retail. Therefore

fore it will be very neceſſary he ſhould confer a little with the following Table, which will be very uſeful in all ſuch caſes.

The Rates of Spirits and Brandies by Quart and Gallon, are as follows.

	l.	*s.*
A Tun of Spirits is 252 Gallons at 6 *d* a Quart, or 2 *s.* a Gallon, amounts to	25	04
At 8 *d.* the Quart, or 2 *s.* 8 *d.* the Gallon is	33	12
At 10 *d.* the Quart, or 3 *s.* 4 *d* the Gallon is	42	00
At 1 *s.* the Quart, or 4 *s.* the Gallon is	50	08
At 1 *s.* 2 *d.* the Quart, or 4 *s.* 8 *d.* the Gallon is	58	16
At 1 *s.* 4 *d.* the Quart, or 5 *s.* 4 *d.* the Gallon is	67	04
At 1 *s.* 6 *d.* the Quart, or 6 *s.* the Gallon is	75	12

A Pipe is 126 *Gallons, at* 6 d. *the Quart, or* 2 *s. the Gallon amounts to* 12 *l.* 12 *s.*

	l.	*s.*
At 8 *d.* the Quart, or 2 *s.* 8 *d.* the Gallon is	16	16
At 10 *d.* the Quart, or 3 *s* 4 *d.* the Gallon is	31	00
At 1 *s.* the Quart is	25	00
At 1 *s.* 2 *d* the Quart is	29	08
At 1 *s* 4 *d.* the Quart is	33	12
At 1 *s.* 6 *d.* the Quart is	37	16

A Hogſhead is 63 *Gallons at* 6 d. *the Quart, or* 2 *s. the Gallon, amounts to* 61. 6 *s.*

	l.	*s.*
At 8 *d.* the Quart is	08	08
At 10 *d.* the Quart is	10	10
At 1 *s.* the Quart is	12	12
At 1 *s.* 2 *d* the Quart is	14	14
At 1 *s.* 4 *d.* the Quart is	16	16
At 1 *s.* 6 *d.* the Quart is	18	18

A Hogſhead is 31 *Gallons and an half, at* 6 *d. the Quart, amounts to* 3 *l.* 3 *s.*

	l.	*s.*
At 8 *d.* the Quart is	04	04
At 10 *d.* the Quart is	05	05
At 1 *s.* the Quart is	06	06
At 1 *s.* 2 *d.* the Quart is	07	07
At 1 *s.* 4 *d.* the Quart is	08	08
At 1 *s.* 6 *d.* the Quart is	09	09

A Runlet is 18 *Gallons, or* 72 *Quarts, at* 6 *d. the Quart, amounts to* 1 *l.* 16 *s.*

	l.	*s.*
At 8 *d.* the Quart is	2	08
At 10 *d.* the Quart is	3	00
At 1 *s.* the Quart is	3	12
At 1 *s* 2 *d.* the Quart is	4	04
At 1 *s.* 4 *d.* the Quart is	4	16
At 1 *s.* 6 *d.* the Quart is	5	08

6 *d.* a Gallon is 1 *d.* half penny a Quart.
7 *d.* a Gal. is 1 *d.* three farthings a Quart.
8 *d.* a Gal. is 2 *d.* a Quart.
9 *d.* a Gal. is 2 *d.* farthing a Quart.
10 *d.* a Gal. is 2 *d.* half-penny a Quart.
11 *d.* a Gal. is 2 *d* three farthings a Quart.
12 *d.* a Gal. is 3 *d.* a Quart.
13 *d.* a Gal is 3 *d.* farthing a Quart.
14 *d.* a Gal 3 *d* half-penny a Quart.
15 *d.* a Gal. is 3 *d.* three farthings a Quart.
16 *d.* a Gal. is 4 *d.* a Quart
17 *d.* a Gal. is 4 *d.* farthing a Quart.
18 *d.* a Gal is 4 *d.* half-penny a Quart.
19 *d.* a Gal. is 4 *d.* three farthings a Quart.
20 *d.* a Gal. is 5 *d.* a Quart.
21 *d.* a Gal. is 5 *d.* farthing a Quart.

22 *d.* a Gal. is 5 *d.* half-penny a Quart.
23 *d.* a Gal. is 5 *d.* three farthings a Quart.
24 *d.* a Gal. is 6 *d.* a Quart.

The foregoing Table is ſo plain that it needs no Explication; however, I ſhall ſhow an Example of the uſe of it.

Suppoſe, as aforementioned, a Gallon of Brandy coſt 5 *s.* and 5 *d.* what is that a Quart, look for the nigheſt number under 5 *s.* and 5 *d.* in the middle of the Table which you will find to be 5 *s.* and 4 *d.* and at the Head of the Line you will find a Quart coſt 1 *s.* 4 *d.* ſo you are only to add one farthing to it for the odd Penny, which makes it 1 *s.* 4 *d.* farthing a Quart, having the Price of a Quart, and would deſire the Price of a Gallon, or greater Quantity, you are to look for the Price of the Quart in the beginning of the Line, and at the middle and end you will find what the greater Quantity coſt, let it be Gallons or Casks.

If a Pound weight of any thing, coſt any number of Pence and Farthings under a Shilling, and from thence to 3 S. *what will a Hundred Weight amount to at* 112 *Pound to the Hundred.*

If a Pound Weight of Tobacco coſt one Farthing, what comes an Hundred Weight to at that rate.

	l.	*s.*	*d.*
Anſwer	00	02	04
At 2 Farthings a Pound	00	04	08
At 3 Farthings a Pound	00	07	00
At 1 *d* a Pound	00	09	04

At

	l.	*s.*	*d.*
At 2 *d.* a Pound	00	18	08
At 3 *d.* a Pound	01	08	00
At 4 *d.* a Pound	01	17	04
At 5 *d.* a Pound	02	06	08
At 6 *d.* a Pound	02	16	00
At 7 *d.* a Pound	03	05	04
At 8 *d.* a Pound	03	14	08
At 9 *d.* a Pound	04	04	00
At 10 *d.* a Pound	04	13	04
At 11 *d.* a Pound	05	02	08
At 1 *s.* a Pound	05	12	00
At 1 *s.* 6 *d.* a Pound	08	08	00
At 2 *s.* a Pound	11	04	00
At 2 *s.* 6 *d.* a Pound	14	00	00
At 3 *s.* a Pound	19	12	00

The Uſe of the foregoing Table is very eaſy; for ſuppoſe I pay for an Hundred Weight of any thing 1 *l.* 12 *s.* 8 *d.* What is that a Pound? I find that 3 *d.* the Pound is 1 *l.* 8 *s.* and 2 farthings a Pound in the beginning of the Table is 4 *s.* 8 *d.* which being added together amounts to the Sum propoſed; ſo you find that a Pound of any thing at 1 *l.* 12 *s.* 8 *d.* the Hundred, is 3 *d.* 2 Farthins a Pound.

A TABLE of the Content of Cylinders in Ale-Gallons, and hundredth parts, from 12 to 60 Inches of Diameter, and to 8 Inches in depth.

Content of Cylinders.

Diam.	DEPTH. 1.	2.	3.	4.
12	0.40	0.90	1.20	1.60
13	0.47	0.94	1.41	1.88
14	0.55	1.10	1.65	2.20
15	0.63	1.26	1.89	2.52
16	0.71	1.42	2.13	2.84
17	0.80	1.60	2.40	3.22
18	0.90	1.80	2.70	3.60
19	1.00	2.00	3.00	4.00
20	1.11	2.22	3.33	4.44
21	1.23	2.46	3.69	4.92
22	1.35	2.70	4.05	5.40
23	1.47	2.94	4.41	5.88
24	1.60	3.20	4.80	6.40
25	1.74	3.48	5.22	6.96
26	1.88	3.76	5.64	7.72
27	2.03	4.06	6.09	8.12
28	2.18	4.36	6.54	8.72
29	2.34	4.68	7.02	9.36
30	2.51	5.02	7.53	10.04
31	2.68	5.36	8.04	10.72

in Gallons and Hundred Parts.

DEPTH.

5.	6.	7.	8.
2.00	2.40	2.80	3.20
2.35	2.62	3.29	3.76
2.75	3.30	3.85	4.40
3.15	3.78	4.41	5.04
3.55	4.26	4.97	5.68
4.00	4.80	5.60	6.40
4.50	5.40	6.30	7.20
5.00	6.00	7.00	8.00
5.55	6.66	7.77	8.88
6.15	7.38	8.88	9.84
6.75	8.10	9.45	10.80
7.35	8.82	10.29	11.76
8.00	9.60	11.20	12.80
8.70	10.44	12.18	13.92
9.40	11.28	13.16	15.04
10.15	12.18	14.21	16.24
10.90	13.08	15.26	17.44
11.70	14.04	16.38	18.72
12.55	15.06	17.57	20.08
13.40	16.08	18.76	21.44

Content of Cylinders

DEPTH.

Diam.	1.	2.	3.	4.
32	2.85	5.70	8.55	11.40
33	3.03	6.06	9.09	12.12
34	3.22	6.44	9.66	12.88
35	3.41	6.82	10.23	13.64
36	3.61	7.22	10.83	14.64
37	3.81	7.62	11.43	15.24
38	4.02	8.04	12.06	16.08
39	4.24	8.48	12.72	16.96
40	4.46	8.92	13.38	17.84
41	4.68	9.36	14.04	18.72
42	4.91	9.82	14.73	19.64
43	5.15	10.30	15.45	20.60
44	5.39	10.78	16.17	21.56
45	5.64	11.28	16.92	22.56
46	5.89	11.78	17.67	23.56
47	6.15	12.30	18.45	24.60
48	6.42	12.84	19.26	25.68
49	6.69	13.38	20.07	26.76
50	6.96	13.92	20.88	27.84
51	7.42	14.48	21.72	28.96

in Gallons and Hundred Parts.

DEPTH.

5.	6.	7.	8.
14.25	17.10	19.95	22.80
15.15	18.18	21.21	24.24
16.10	19.32	22.54	25.76
17.05	20.46	23.87	27.28
18.05	21.66	25.27	28.88
19.05	22.86	26.67	30.48
20.10	24.12	28.14	32.16
21.20	25.44	29.68	33.92
22.30	26.76	31.22	35.68
23.40	28.08	32.76	37.44
24.55	26.46	34.37	39.28
25.75	30.60	36.05	41.20
26.95	32.34	37.73	43.12
28.20	33.84	39.48	45.12
29.45	35.34	41.23	47.15
30.75	36.90	43.05	49.20
32.10	38.52	44.94	51.36
33.45	40.14	46.83	53.52
34.80	41.76	48.72	55.68
36.20	43.44	50.68	51.92

Content of Cylinders *in Gallons and Hundred Parts.*

The

DEPTH.

Diam.	1.	2.	3.	4.	5.	6.	7.	8.
52	7.53	15.06	22.39	30.12	37.65	45.18	52.71	60.24
53	7.82	15.64	23.46	31.28	39.10	46.92	54.74	62.56
54	8.12	16 24	23.36	32.48	40.60	48.72	56.84	64.96
55	8.43	16.84	25.26	33.68	42.10	50.52	58.94	67.36
56	8.73	17.46	29.19	34.92	43.65	52.38	61.11	69.84
57	9.05	18.10	27.15	36.20	45.25	54.30	63.35	72.40
58	9.37	18.74	28.11	37.48	46.84	56.22	65.59	74.96
59	9.69	19.38	29.07	38.76	48.45	58.14	67.83	77.52
60	10.03	21.60	30.09	46.12	50.15	60.18	70.31	80.24

The uſe of the foregoing TABLE.

HAving found the Mean Diameter of the Veſſel, and alſo the Depth of the Liquor, ſeek the Diameter in the firſt Column of the Table, and caſting your Eye upwards, you find over all the other Columns, one of the Digits, amongſt which you ſhall find your Depth of Liquor, if it be under eight Inches, then under that Figure, and againſt your Diameter you ſhall find your Number of Gallons, and Parts.

Example.

To find the Content of a Cylinder, whoſe Diameter is 56 Inches, and Depth 7 Inches.

I ſeek, firſt the Diameter 56, and againſt it in the Column under 7. I find 61 Gallons and 11 parts of a Gallon, which is almoſt a Pint. To reduce any of the fractions ſuch as 11, you are to Multiply it by 8, and cut off 2 Figures to the Left-hand, which is ſo many Pints, and thoſe to the Right are ſo many Parts of a Pint.

THE True ART OF Brewing Beer, Ale and Mum.

THere are many different Opinions concerning Brewing, and particularly in the Boyling of the Liquor of Worts, but I ſhall not trouble my ſelf here to compoſe the difference of Men's Opinions therein, but ſhall treat of what natural Reaſon and my own Experience (by unwearied Travel and inſpection therein) has taught me, as well in the *Northern-parts* of *England*, as in the *South* and *Weſtern*.

Firſt, You are to make your Water Boyl, and immediately abate your Fire inſomuch that the Water may give over Boyling, letting it ſtand in the Copper, or rather draw it from thence into ſome well ſeaſon'd wooden Veſſel, for the ſpace of one quarter of an hour, then wet your Malt therewith very ſtiff, pouring it on by degrees; when you find that your Malt is all wet, ſtir it very well, and let it ſtand for half an hour, then pour the remaining part of the Liquor which you intend for the firſt Worts, on your Maſh very gently, and cover

ver it up for two Hours, then put what quantity of Hops you think fit into your receiver and let your Worts run to them, letting it ſtand with the Hops in it one Hour; then ſtrain it into your Cooler, and you have done with your firſt Worts; then pour the full quantity of Liquor upon your Maſh, according as you deſign your Beer or Ale to be in Strength, in a manner Boyling, ſtirring it very well, then let it ſtand covered as before for half an Hour, and let it run into your Receiver, then put all your Worts together into the Copper, adding thereto more Hops at pleaſure, according to the Liquor you intend to Brew, whether it be Beer or Ale.

Let it Boyl for two Hours gently, then abate the Fire, and draw it out into the Coolers, ſtraining the Hops there-from through a Basket for that purpoſe, and ſo you have done with preparing the Worts which is the firſt and greateſt work.

The quantity of Hops you are to uſe for Ale is three Pound to 8 Buſhels of Malt; if it be Beer, you put 6 Pound to 8 Buſhel.

Take care your Veſſels be kept very clean, or elſe they will turn Sower, and will prick the Worts, which will cauſe the Drink to turn Sower and Dead.

To prevent the Sowering of your Veſſels, you are to waſh them with warm Water, mixt with your Hops which you ſtrain from the Wort.

When your Wort is Milk warm, put it into your Guile-Tun, and add thereto your Yeaſt, or Barm; and when it works over, beat it in very moderately, and often; when it is at the height of Working, Tun it into your Casks being well ſeaſoned and clean, and it will ſtill continue Working and Fine it ſelf.

Double Ale or Beer is Brewed after the ſame manner of ſingle, only inſtead of Water, you Maſh with the firſt Worts upon freſh Malt.

Thus I have given you my Judgment of Brewing Ale

Ale and Beer, and ſhall only ſay two or three Words to the difference of Water.

Some are of opinion that River Water makes the beſt Drink, but to my knowledge there is a place in *Yorkſhire* ſome 9 Miles from *York* called *Eaſingwood*, and another place called *Byland*, that exceeds all *Yorkſhire* for good and ſtrong Ale. And tryal has been made with the ſame quantity of Malt made of the ſame Barly at one and the ſame time, and the ſame quantity of Water; the one being Brewed with River Water at *York*, and the other with Spring-water at *Byland*, the product of Worts was the ſame, and Brewed by the ſame Brewer, and yet the *Byland* Ale was both ſtronger, pleaſanter and clearer than the other. The Spring proceeds from a Lime-ſtone, which Water I am confident is better than River Water.

Several other ways of Brewing read in a Book called Art's Treaſury, Sold at the Ring in *Little Britain*. Price one Shilling.

CHAP. IV. *To clear and fine Beer, and preſerve it from Sowering.*

TAke the Whites of 10 Eggs, and mix with Wheat Flower, and add thereto a ſpoonful of the Jelly of Iſinglaſs, and a ſmall quantity of Niter, and it will preſerve, clear and feed the Beer to admiration.

To recover Sower Beer, to its former Taſte.

Take three or four handfuls of the Aſhes of burnt Beech, and as much burnt Oyſter-ſhells, and as much Niter as will lie upon a Shilling, and put all into a Bag and hang it in the Liquor, then take a good handful of Wheat and throw therein, and Bong up the Veſſel.

If Beer be not very ſower, throw a piece of Chalk well dry'd by the Fire in the Lump therein, and it will be drinkable in 3 Hours.

How

How to Bottle Beer and Ale.

Take a handful of Roſemary and Boyl in a Quart of fair Water, kimming it very well, and add thereto half a Pound of fine Loaf Sugar, and a few Cloves, and when it is Milk warm put thereto a ſpoonful of Barm, and when it begins to work skim off the Barm, and put two ſpoonfuls of this to one Bottle, and fill the Bottle almoſt to the neck. Then Cork it very well, your Drink muſt neither be ſtale nor new.

Scurvey graſs Ale after the beſt manner.

Take Scurvey-graſs half a Peck, Water-creaſes four Handfulls, Brook-lime three Handfuls, Horſe-Radiſh three Ounces, Sweet Fennel-Seeds and Sena, of each 2 Ounces, Figs 4 Ounces, bruiſed, and new Ale 2 Gallons; put them into an Earthen Pot well ſtopt, and let it ſtand for uſe. As you increaſe the Quantity of the Liquor increaſe likewiſe the Ingredients.

To Brew as good Mum as Brumſwick.

To make a Hogſhead of Mum, you muſt uſe as much Water as (when Boyled to the Conſumption of one 3d part) may make a Hogſhead of Drink, which I believe may be about 100 Gallons: To which you muſt put 7 Buſhels of Wheat Malt, one Buſhel of Oat Malt, and one Buſhel of ground Beans, being Brewed according to the Method of Beer and Ale; you are to Tun it when it is ſufficiently wrought (but not too long) into your Cask, the ſame being well ſeaſon'd, and not fill'd too full; put into the Cask when working, the Tops of Fir and Birch, of each one Pound, three handfuls of Cardus Benedictus dry'd, Flowers of Roſa Solis a handful, Bettony, Marjorum, Penny-royal, Flowers of Elder and Thyme, of each a handful, Seeds of Cardamum and Barberries bruiſed, of each two Ounces. When the Liquor has wrought a while with the Herbs, fill it up with the remaining Liquor, and then put in the Cask a dozen of new laid Eggs, the Shells not cracked

cracked, then Bong it up close, and keep it for one, two or three whole years before you use it, for the longer you keep it, the better it is,

CHAP. V. *Of making Cyder anp other Liquors of Fruits, after the best and most profitable manner.*

THE first thing to be considered here is the Ripeness of the Fruit; There being much Cyder spoil'd in this Kingdom through using the Fruit before it be ripe, which yields but a Crab'd and sower Liquor; and will not keep so long as if the Fruit were ripe before it be used.

This is occasioned by the Ignorarte, and Covetousness of Men, who thinking to get all looses all; for when Apples falls from the Trees before ripe, by the wind or otherwise, he is resolved he will make use of them, merely for the g eater quantity of Liquor they produce, not considering what a sower, Phlegmatick, and unhealthful Liquor proceedes there-from, and how hurtful it is to the other good and ripe Fruit.

Therefore I would advise that such Fruit as fall before ripe, be laid by till the time of their being ripe if they had been on the Tree; before you grind them, and to keep the Product of them by it self.

When the Fruit is ripe, which you may know by their fragrant smell, or Blackness of the seed or kernel, lay them in a dry place upon Oat-straw, for the space of 16 or 18 days; pick out all the Rotten or Bruised Apples from the sound, for they will give your Cyder a bad taste.

When your Fruit is grinded it is proper you let the whole Mass stand a day or two, according to your Conveniency before you press it, for it will mightily help the Colour of the Cyder.

If you have in the bottom of your Vessel some small holes

holes through which the fine Liquor will Diſtil into a receiver, it will be much better then that which is preſt.

In preſſing your Fruit I leave that to your own Diſcretion, and Conveniency, the greateſt loſs that can happen thereby is only that ſome ways of preſſing produces leſs Liquor then others.

Gather all the Liquor, as it comes from the preſs into ſome convenient large Veſſel, ſtraining it through a ſtrainer therein, when ſo done throw a Cloath over it and let it ſtand and Ferment,

In order to its Fermentation you are to keep it warm, by warm Cloaths, or otherwiſe, for that will be a great help to the ſpeedy and well Fermenting of it; the way of Fermenting of it muſt be thus. Take four or five Ounces of *Iſinglaſs*, and beat it very well upon an Anvil, put it into three or four Quarts of warm Cyder, let it ſtand in a warm place for three or four days, till it turn to a Jelly, then put a Gallon of Cyder, and mix it with this Jelly very well, and put it altogether into your Veſſel, ſtiring it very well with a Staff, and in a day or two it will be fit for to put into ſuch Veſſels as you deſign to keep it in all the year; taking care before you draw it into theſe Veſſels, to take off a ſort of skim, which will lie on the ſurface of the Liquor.

When the Liquor is thus well Fined and Purified, and put into ſuch Casks as you find convenient; leaving therein no more Lees than is neceſſary for its Preſervation, it will keep a long time: But obſerve that your Casks be well ſeaſon'd.

Take care you do not fill your Casks too full, but leave room for the Cyder to finiſh its Fermentation; but if it will Ferment no more, and you deſign to keep it long, put into a Hogſhead thereof, a quart of unground Wheat, or a ſmall quantity of the New Lees of Canary, and then Bung it up, and leave a ſmall Vent-hole, with a looſe Peg, therein, for there is a wild Spirit in all ſuch Liquors which will often force a Vent.

To Bottle Cyder.

Great care muſt be had to the well Seaſoning of the Bottles, which I leave to every Man's own Diſcretion. When your Cyder is throughly Purifi'd, draw it into Bottles, putting into each Bottle about the Bigneſs of a Walnut of fine Sugar; or if the Cyder be ſharp of Tart uſe more Sugar; if it has body enough, and not Flat, the former quantity is enough, then let your Bottles ſtand about an Hour before you Cork them up. Then lay the Bottles on their Sides; open each Bottle once a day for a Week, and ſtop them cloſe up again, which will let out the wild Spirit, and hinder the breaking of the Bottles; let your Bottles be fill'd within an Inch of the Neck.

You muſt be careful in chuſing good Corks, and let them ſteep three or four Hours in warm water before you uſe them.

Perry is made after the ſame manner as Cyder, only your Pears muſt not be too Mellow when uſed, and if you Grind a few Crabs amongſt them, it will make the Drink more pleaſant.

How to make Gooſeberry Wine.

Take the Gooſeberries and preſs the Juice from them, and ſtrain it very well; then take as much water as the quantity of the Juice is, and Boyl with refined Sugar, about the quantity of one Pound to a Gallon of Wine (when it is mix'd with your Water) then mix the Juice and water together, and fine it with Iſinglaſs, as before directed, after the rate of an Ounce to Ten Gallons, and when the Scum is raiſed to the top, take it off, and the Liquor will be clear; then draw it into your Veſſels, and it will finiſh its Fermentation, and in a Months time it will be fit for Bottling, put into each Bottle a piece of Sugar.

Currant and Rasbery Wines are after the ſame manner, only

only the Currants when too Ripe are Sower, therefore muſt be pull'd when juſt Ripe; and *Gooſeberries* the longer they are on the Tree, the ſweeter they are.

An Appricock or Peach bruiſed, and put into a Bottle of any of theſe Wines, will give them a curious Flavour, and brisk Taſte.

To Fine French *and* Spaniſh *Wines Infallibly.*

Take Half a Pound of Iſinglaſs, and put into a Pint of the Rougheſt Clarret, ſo that it may be covered therewith, let them ſtand 24 Hours, then take out the Iſinglaſs and beat it to pieces, then put to it more Wine, ſqueezing it four or five times a day, and as it thickens put to it more Wine; then take a Quart of this Jelly, and mix with three Gallons of the ſame Wine you are to Fine, and put into the Hogſhead, beating it with a Staff very well, and in two days the Wine will be Fine. If it be French Wine you muſt Bong it up very cloſe, but not the Spaniſh.

How to Fine Wines preſently.

Put into your Cask ſome Chips of Beech, half a Pint of Vinegar, and a Pint of the beſt Spirit of Wine, and half an handful of Salt well dry'd, and in twelve Hours it will be Fine.

To Fine a ſort of Wine call'd Ippocras.

Put therein only New Milk, and in a ſhort ſpace it will carry to the bottom all the groſs part of the Wine.

To Cure French *Wine, Ropy, Muddy and Thick.*

Take a Pint of Spirit of Wine and put into a Hogſhead of Wine provided the Wine be not ſharp, and it will cure it very ſpeedily, but take care to draw it as ſoon as you can.

Another way.

Make a ſtrong Lee of the Aſhes of Vine branches, and Oak-leaves, and pour a Quart thereof into a Pipe of Wine hot, and ſtir it well; then infuſe two Pound of Turnſoll in good Sack ten Hours, put the Infuſion, being ſtrain'd, into your Wine, and it will make it have a good Flavour, and drink extraordinary well after two days ſettling.

To cure the Pricking of French *Wine.*

Take one Pound of the Powder of Holland, or Flanders Tiles, and half a Pound of Roach-allom, and beat them well with a ſufficient quantity of the Wine, and put into the Hogſhead.

How to Cure the Pricking of Rheniſh.

Firſt Rack your Wine into a well ſcented Cask, then mix with two Gallons of Skim-milk, ſeven Gallons of Clarified-honey, and beat them well, and put into the Cask, and after beating it well in the Cask, let it ſtand to ſettle.

How to Cure the Pricking of Spaniſh *Wine.*

Put into a Gallon of Wine eighteen or twenty fine Lime-ſtones unſlact, ſtiſing it very well, and thereto add more Wine, and pour this mixture into the Cask, and ſtir it well, then when it is ſettled, Rack it into a well ſcented Cask.

How to Preſerve Claret.

When the Claret is Rack'd from its Lees, put into a Tierce of Wine ten or twelve new laid Eggs, making a ſmall hole in the ſhell of each, and the Wine will conſume all the Eggs, and keep ſound.

To Preſerve and Regain the Colour of Claret.

Infuſe Red Beet Roots in the ſame Claret, and put a ſufficient quantity thereof (being Strain'd) into your Wine, according as you would have your Wine in Colour.

You may infuſe with the Roots two or three handfuls of Ripe Mulberries.

To prevent the Sowring of French *Wines.*

Take the Powder of the Grains of Papadiſe a ſufficient quantity, together with Lavender-tops, and put into your Veſſel.

To help Sower French *Wines.*

Take four Ounces of boyled Wheat, and three or four Canes of Cinamon, and put into a Hogſhead, ſtiring it very well, then Bong it up cloſe.

To help Spaniſh *Sower Wines.*

After it is Rackt into a clean Cask, put therein two Gallons of Rain-water, mixt with five Ounces of Burnt Chalk, and two Ounces of Lime unſlact, together with two Ounces of Nutmegs and Cloves.

To help ſtinking Wines.

Take half an Ounce of Ginger, and three Drams of Zedoary, and Boyl them in a Pottle of good Wine, and put thereto two Ounces of Nutmegs and Cloves, put it into the Hogſhead very hot, Bong it up cloſe.

To rectify old decay'd Wines.

Take three Gallons of Stum and make it very hot, but not boyling, and put it ſo into the Hogſhead, ſetting a Pan of Fire nigh the Hogſhead, which will cauſe the Wine to drink brisk and pleaſant.

Another way to recover Flat Wines.

Draw your Wine upon Freſh Lees, if it be Spaniſh, and there needs no more. But if French, you muſt Boyl in a Gallon of good Wine eight Ounces of Raiſins, and when it is Boyled put therein a pound of Fine Sugar or Mollaſſes; then put it into the Hogſhead, and Bong it up. If this be put into any Wine, it will make it drink very brisk and ſparkling.

To help Disturb'd French *Wine.*

Take two or three Pound of the Powder of Peeble-ſtones bak'd in an Oven, and mix therewith thirteen or fourteen Eggs, add thereto a Gallon of the ſame Wine, then put them into the Cask, and ſtir it very well, and in two or three Days draw it into a freſh Cask.

To Cure Spaniſh *and* Rheniſh *of its fretting.*

You need uſe nothing elſe but open the Bong, and lay thereon a blew Slate, and the Filth which the Wine Purges, muſt be wiped off the Slate three or four times a day for three Days, then let it ſtand quiet for eight or ten days and then Rack it into a freſh Cask, being ſcented with hanging a Match rub'd with Brimſtone in at the Bong.

How to Scent a Cask for Wine *or* Cyder.

Take four Ounces of Brimſtone, and half as much Burnt-allom three Ounces of Aqua-vitæ, melt them in an earthen Pan over a Fire, then take a Piece of new Linnen Cloth and dip therein, and ſprinkle upon the Powders of Nutmeg and Cloves, then ſet it on Fire, and let it burn in the Bong-hole ſo as the Fume may diſperſe itſelf into the Veſſel.

How to make Cowſlip Wine.

Take three Gallons of fair Water, and five Pound of Loaf-ſugar, and Boil them for half an Hour, and ſcum it well, then let it ſtand till it is almoſt cold; then put in four Quarts of pickt Cowſlips, gently bruiſed with two ſpoonfuls of Ale-yeaſt, and one Pound of Syrup of Lemons beaten with it, and let them ſtand cloſe ſtopped three Days in Fermentation; then ſtrain away the Liquor from the Herbs, and put it into a Barrel, give it juſt room to Work,

Work, and ſo let it remain one Month; then draw it off into Bottles upon a little Loaf-Sugar, Cork it, and tie it down cloſe, and it will keep a Year. The like may be done with *Primroſes*, or any other Flowers.

How to make Scurvy-graſs *Wine.*

Take Scurey-graſs in *May*, *June*, or *July*, and ſtamp it in a Stone Morter, and put in it a large Earthen Pan, and ſprinkle it over with a little Powder of Salt of Tartar, and ſmear it over with Honey, and cover it cloſe, and let it ſtand ſo for twenty four Hours, and in the mean time decoct to every Gallon of Water three pints of Honey, and gently boil it half an Hour; ſcum it and take it from the Fire, and when almoſt cold, put your Scurvy-graſs into a Barrel, and pour the Liquor on it, and in a gentle warmth let it ſtand in Fermentation, put therein a ſufficient quantity of ſliced Horſe-radiſh, and ſo let it be fully Fermented, take the Juice from the Herbs, and leave them dry, and put the Liquor a ſecond time in freſh Herbs, and Ferment as before, and then refine it with whites of Eggs, and Flower, beat it up together, and when ſufficiently ſtale, then it is the true Wine of Scurvey-graſs; but your Fermentation muſt be in a cold place.

To make Mead.

Take Twenty Gallons of the beſt Spring-water can be gotten, and put it over the Fire, and let it ſtand for two or three Hours, but ſuffer it not to boil; and to every Gallon of Water add three Pound of Virgins Honey, and let it gently boil an our Hor more, and take off the Scum in the boiling; and when it is almoſt cold, add two ſpoonfuls of Ale-yeaſt to every Gallon, and ſo let it work two Days; then Barrel it up, and add to every Gallon of Liquor, Nutmegs, Mace, Cinnamon in powder, each half an Ounce, tye it up in a Bag, and caſt it into the Li-

quor, then ſtop it cloſe for a Month, two or three, the longer the better; draw it out and bottle it, and a bit of Loaf-Sugar.

Another highly eſteem'd of.

Take to every Gallon of the cold Diſtilled Water of Cowſlips, or Spring Water, two Pound of the beſt Virgins Honey, and to every twenty Gallons, add in the boiling a good handful of Marjorum, Balm and Roſemary each together, and before it be quite cold ſtrain it through a Seive, and Ferment it as before is ſaid; then add in the Barrel Cinnamon, Nutmegs, Mace, Ginger, Orice-roots half Ounce, and three or four Lent-figs, and let it Work and Refine as the former, and bottle in the ſame manner. Obſerve, that French ſhews the way of making Matheglin ſtale quickly, by covering over with Bread and Muſtard.

To make Artificial Claret.

Take the Juice of Clary, or the water of Clary Diſtilled in a cold Still, one part, Redſtreak, or Pippin-Cyder half a Part, and add five or ſix Pound of Malaga Raiſins, and beat them in a Stone Morter, and let it Ferment cloſe covered over, the ſpace of fifteen Days, ſtiring of it every ſecond Day, then preſs out the Fruit, and put to the Liquor into a Barrel, with a little Chriſtals of Tartar, or the fat Mother of Claret, and to every three Gallons add a Pint of the Juice of Black-Cherries and Caſe-berries, or Black-berries, and cover'd over with Bread and Muſtard, and ſo will it refine and come to be Excellent Wine. Obſerve, with the Mother of a Hoſhead of any Wines, a Hogſhead of Wine may be made not much differing from its Original; now in Fortifying your Artificial Claret, that if you take a Pint of the Spirit of Clary, and the whites of two new laid Eggs, a Dram of Iſin-glaſs, and three Spoonfuls of fine Floor, two Pound of the Syrrup of Clary, all being beat together, and refined down, and thus does it come wonderful Rich.

To

To make an Artificial Malaga Wine.

First take a Wine Barrel hooped, and dreſſed, with one end being open, to which a cloſe Cover muſt be fitted, which muſt be to take off and to put on at pleaſure, ſet in a warm place, Winter or Summer; and fill it full with clear and pure Water; to each 3 Gallons, put ſix Pound of the beſt Malaga Raiſings, which you muſt bruiſe in a Stone Mortar, and then ſtrow upon the Water; upon each twenty Gallons of which, you muſt caſt a handful of Calx Vive; then cover the Veſſel cloſe with the Cover, and caſt Cloaths upon it to keep it warm, and let it ſtand 4 or 5 Days to Work as Wine or Beer do, when they be new; then ſee if the Raiſins be riſen up to the top of the Water; if ſo, then put them down again, as before; let them thus ſtand 3 Weeks or a Month together with the Raiſins being every fourth or fifth Day put down in caſe they riſe up: Then put a Tap into the Veſſel three or four Fingers above the Bottom, and try if it be good and taſte like Wine; if not, let it ſtand a while longer; but if ſo, draw it off into another Wine-Veſſel, and to every twenty Gallons that you have drawn off, put a Pint of the beſt Aqua-vitæ, two new-laid Eggs, and a Quart of Alligant, beaten well together, and let it ſtand in a Cellar, as other Wine doth, till it be clear and fit to be drank. Not only this Malaga, but the Author doth alſo ſuppoſe, that thou may'ſt by theſe examples, invent and prepare ſeveral other ſorts of Wines, which is not here ſet down, by thy having knowledge of different Herbs, that bears the ſtiptick aſſid or mild taſte, and have a Signature with the different Sulphurs of the different ſorts of Wines; as *Ripadavia*, and *Rialla*, and *Canary*, *Tent*, &c.

How to make Cordial Waters after the moſt Phyſical and pleaſant manner.

To make the Peſtilential Water.

Take of Rue a handful, and as much Barm, and half a handful of Pimpernel and Dragon, Mugworth, Celendine, Angelica, Agrimony, and Roſemary; bruiſe them all in a Mortar, put them in an earthen Pot, put thereto a Gallon of Rheniſh Wine, and let them ſtand ſix Days, then put the whole Maſs in Limbeck, draw off the Spirit, and preſerve for uſe.

The true Receipt to make Dr. Stephens's *Water.*

Take of Coriander and Fennelſeeds, Annaſeeds, Galinga and Ginger, of each a Dram, Cinnamon, Nutmeg, and Cloves, of each a Dram, of Camomil, Sage and Marjorum, five Ounces, Fennel, Parſley and Setwel Roots three Ounces: Bruiſe them, and put thereto two Quarts of Canary, and as much ſtrong Ale; let it ſtand twenty nine Hours, and it is fit to put into the Still, drawing it off Gently.

How to make Treacle Water.

Take Carduus Benedictus, Marigolds, Baum, of each 4 handfuls, Angelica, and Maſterwort, each 3 handfuls, Venice Treacle 8 Ounces, one Gallon of Canary and 3 Pints of White-Wine, one Quart of Lemon-Juice, digeſt the whole in a cloſe Veſſel three Days, and diſtil the ſame.

How to make Cinnamon Water.

Take half a Pound of Cinnamon, well bruiſed, ſteep it in a Quart of good White-Wine, and as much Roſe-water, and Sack, for the ſpace of 14 Hours, ſtir it often, the product of this from the Still will be 3 Pints.

To

To make the beſt ſort of Right Iriſh Uſquebaugh.

Take of Good Spirits 12 Gallons. Put therein of Anniſeeds, Nutmegs, Sugar, Carroway-ſeeds, of each four Ounces, diſtil the whole to proof Spirit, put thereto Liquoriſh, Raiſins of the Sun 2 Pound, and 4 Pound of Sugar, let it drain through a Flannel Bag, and fine it down with the Whites of Eggs and Wheat Floor: This is the only way the Natives of *Ireland* make this Liquor, which is approved of to exceed all the other new ways of making it, being but imitations of the Original.

A moſt excellent Spirit of Elderberries, of Sovereign Vertues in many Diſeaſes.

Take ripe Elder-berries, and in a great Preſs, preſs out the Juice as you do Grapes in *England*, and barrel it up, and Ferment it very well, according to the higheſt Rules of Fermentation, with addition of a Pint of White-wine Lees, and after 10 or 12 Days, diſtill it in a Limbeck; after fourteen Days rectifie it again. Obſerve, that the Wines and Spirits of all Berries, as *Elderberries*, *Rasberries*, *Mulberries*, *Blackberries*, *Cherries*, and the like, you are not to uſe Water, but preſs out their Juices, as before is ſaid, and help on the Fermentation with Sugar, *&c.* Now any Wine or Spirit that ye deſign to have ſtrong in Taſte, and Smell of the Herbs or Flowers, let them but reiterate the Fermentation and Diſtillation, and in each Operation, put in freſh Flowers and Herbs in their prime, and then it ſhall be Obtained. Here uſe *Elder-Flowers.*

To make Cherry Wine.

Take a conſiderable quantity of ripe Cherries, and take the Stones out of them, preſs the whole Maſs in a Preſs, and ſtrain the Liquor, and let it ſettle for three Days, then draw it off from the Sediment, and Bottle it up

up for Uſe, putting in each Bottle an Ounce of Loaf Sugar, and a little Cinnamon, tye the Cork down, and let it ſtand ſix Weeks, and it will be a moſt pleaſant Liquor.

For Stone or Gravel.

Drink Water mixt with a little Treacle.

To make Worm-wood Wine.

Take a Gallon, leſs or more, of ſmall White-wine, put therein three or four Lemon Peels, of Mace and Cinnamon, half an Ounce of each, to each Gallon of Liquor put a Pound of white Sugar, and ſtop them up cloſe in a convenient Veſſel, and when it has ſtood five Days, draw it into Bottles, putting into each Bottle a dram of the Quinteſcence of Worm-wood, Cork the Bottles very well and let them ſtand 3 or 4 Weeks, and they are fit for Drinking.

Read more of ordering Wines in a Book called, *The Art and Miſtery of Vintners and Wine Coopers*, *Pr.* 6 *d.* and to make 23 ſorts of *Engliſh* Wines as good as *French*, read a Book called, *The way to get Wealth, by making* 23 *ſorts of* Engliſh *Wine, equal to* French, *and Cyder equal to Canary and many other curious matters*, *Pr.* 1 *s.* 6 *d. Sold at the Ring in* Little-britain.

CHAP. V. *Concerning Diſtillation of Spirits and Brandies from Malt.*

THE Common way uſed by the beſt diſtillers in *Holland*, and other parts, is as follow, *viz.* They firſt make their Liquor or Water almoſt Boyl, and pour it upon the Malt, in a convenient Veſſel for that uſe, ſo that it may juſt wet the Malt, when it is wet ſo much as is requiſite, they row, or ſtir it very well for the ſpace of an Hour, then they cover it up and let it ſtand for two Hours; then they let it off into the Receivers

Receivers, and pour on more Liquor, and let it ſtand about an Hour, and in like manner a third time; when they have thus done, and convey'd all the Worts into the Waſh-Backs, they Ferment it with Barm, for two or three Days, keeping it from Working over the Backs, by often beating it in, obſerving to take off the Barm before it Work itſelf Flat, or elſe the Yeaſt will fall to Bottom and damnify the Waſh, let it ſtand for uſe in the Back till it be a Medium between Sower and Sweet.

They draw it out of their Backs into the Still by a Pump, filling the Still above half full, obſerving to keep working of the Back all the while, ſo that it may be equally mixt; when ſo done they ſhut the Still; and by a good fire, ſet it a Boyling; they then Lute the Still with the Whites of Eggs and Barly Floor: If the Malt be good, the firſt two or three Cans will be proof Spirits, which needs no more diſtillation. Then they proceed (the low Wines being all drawn, and has ſtood 8 or 9 Days) to Diſtillation of Spirits, which they do in the ſame manner as they do for the Low-Wines, and if they intend to have it double Rectify'd, they draw it a Third time.

The common quantity drawn from a Quarter of good Malt, is three Barrels of Waſh; and from thence your Product of Low-Wines will be thirty ſix or thirty eight Gallons, which will yield ſome fourteen Gallons of proof Spirits.

To prepare a Liquor of Molaſſes from whence you may draw a Good Spirit.

Make your Liquor, or Water Blood warm, and put to 40 Gallons of the ſaid Liquor, a Hundred Weight of Molaſſes, ſtir them well together, for the ſpace of 2 or 3 Hours, till the whole is diſſolved, then put it into your Copper, putting therein a ſufficient quantity of Barm,

Barm; Nutmegs and Cinnamon, according to the Diſcretion of the Diſtiller, the intent of the things being only for a Flavor: when you have ſo done, clap on the Head while the Liquor is yet warm, and let it ſtand twenty four Hours well Luted, then let it run into the Receiver, and put your Barm therein, and let it Work very well, beating it in Four or Five times a Day, for two Days, then let it ſtand Four or Five Days and it is an Excellent Liquor for Drinking, or Diſtillation.

Excellent Receipts for making Phyſical and other Ales.

To make Cock-Ale.

Take a young Cock, and Boyl with four Pound of ſton'd Raiſins of the Sun in fair Water, put thereto three or four Nutmegs ſlic'd, together with an Ounce of Mace and half a Pound of Dates, beat them well, and put them into three Quarts of Canary, and put thereto the Liquor wherein the Cock was Boyled in a manner to pieces, ſtrain the Liquor, and preſs the remainder, and when your Ale has done Working, pour it in and ſtop it cloſe, three Quarts will be ſufficient for a Barrel of Ale, let it ſtand twenty four Hours, and Bottle it up, and in three Weeks it will be fit for drinking.

To make Broom-Ale.

Take three handfuls of the tops of Broom, (Green Broom is the beſt) and Boyl it five Hours in two Quarts of good Ale, adding thereto (after one Hours Boyling,) a Quart of Reniſh Wine, and three Ounces of Elecampane Root; when it has Boyled ſo long, take it off the Fire, and ſtrain it through a Linnen Cloth, and put the Liquor into

into an Earthen Veſſel, and put therein two Ounces of Horſe-Radiſh ſliced, Agrimony, and Polipody of each three Ounces, let it ſtand three Weeks and pour it into three Gallons of Ale, and it will be an excellent drink againſt the Dropſy.

An excellent Drink againſt the Scurvy.

Take three Pecks of Sea Scurvy-graſs, or Garden Scurvy-graſs if the other cannot be got, one Peck of Water-creſſes and Brook lime, twelve Ounces of Engliſh Rubarb, Horſe-Radiſh eight Ounces, Anni-ſeeds and Caraway-ſeeds of each three Ounces, Sena and Polipody of the Oak ſix Ounces, and put it into new Ale, and let it ſtand four or five Days before you drink it, and it is an excellent Drink, Spring and Fall to preſerve the Health and Purge the Blood.

A Purging Ale by Dr. Butler, *Phyſician to King* James.

Take Sea and Garden Scurvy-graſs, of each a Peck, Sena and Polipody of the Oak, of each four Ounces, Sarſaparilla ſix Ounces, Caraway-ſeeds and Anni-ſeeds, of each half an Ounce, Liquoras two Ounces, Agrimony and Maiden-hair, of each two indifferent handfuls, cut the Saſaparilla, ſcrape and ſlice the Liquoras, then let them be all together groſſly beaten, then put a Gad of Steel into the bottom of a Canvas Bag to make it ſink, and upon that all the former ingredients, and hang it in a Veſſel of a fit ſize, and Tun upon it four Gallons of good Ale, after four or five Days you may drink of it and when it begins to grow ſtale draw it into Bottles and Cork it cloſe, and ſet it in a Cool Cellar upon the ſtones, or in ſand, If you would have it more purging, increaſe, or double the Proportion of Sena.

How to make Coffee, Tea, Chocolate, *and* Content.

To make Coffee.

YOU muſt take a ſufficient quantity of Fair Water, and Boil it over a gentle Fire, but rather ſet it before the Fire in a convenient Tin Pot for that purpoſe, till it Boil; and when it begins to Boil, put to every Pint and half of Water, two Ounces of the beſt Coffe-powder, and let it Boil for a quarter of an Hour, and it it is fit for uſe; after it has ſtood for a ſmall time to ſettle. If you would make Milk Coffee, you muſt, to every Pint of Water, put a quart of Milk.

How to make Tea.

To every Quart of hot Water, put an Ounce of good Tea, and ſet it over a gentle Fire till it Boil; when it has boyled for half an Hour, take it off the Fire, and ſet it before the Fire, to keep hot; and as you ſerve it in Diſhes, put therein as much fine Sugar as will ſweeten it, or rather Sugar-Candy. Some are of Opinion that boiling it in Milk, is better than Water, putting thereto a ſmall quantity of Salt.

To make Sage-Tea.

You muſt take an Ounce of Sage, and put into a Quart of hot Water, and ſet it over the Fire, as before directed; when it has Boiled half an Hour, take it off, and keep it Warm; if you put into the Water, when it is a Boiling, a ſprig of Roſemary, and a Blade or two of Mace, it will give it a fine Taſte, and will make it comfortable to both Head and Stomach; ſome uſe two parts Sage, and one third Mint.

To make Chocolate.

Take of Milk one Pint, and of Water half as much, and Boil it a while over a gentle Fire; then grate the quantity of one Ounce of the beſt Chocolate, and put therein

therein; then take a ſmall quantity of the Liquor out, and beat with ſix Eggs; and when it is well beat, pour it into the whole quantity of Liquor, and let it boil half an Hour gently, ſtiring it often with your Mollinet; then take it off the Fire, and ſet it by the Fire to keep it hot; and when you ſerve it up, ſtir it well with your Mollinet. If you Toaſt a thin ſlice of white Bread, and put therein, it will eat extraordinary well.

It will not be amiſs to Inſert the manner of making the Chocolate Cakes, or Rowles, to the end, that thoſe who uſe it may the better Judge of the goodneſs thereof.

To make Chocolate Cakes and Rowles.

Take Cocoa Nutts, and dry them gently in an Iron pan, or pot, and peel off the husks, then powder them very ſmall, ſo that they may be ſifted through a fine Searce; then to every pound of the ſaid Powder add ſeven Ounces of fine white Sugar, half an Ounce of Nutmegs, one Ounce of Cinnamon, Ambergreace and Musk each four Grains, but theſe two may be ommitted, unleſs it be for extraordinary uſe.

To make Coffee-Houſe-Liquor call'd Content.

Take one pint of Milk, and half a pint of Water, and Boil them together gently, then grate an Ounce of the Roule ſo called, therein, and ſet it upon the Fire, then take a ſmall quantity of the Liquor out and beat with three or four Eggs, and put into the whole quantity, when it has Boiled half an hour take it off the fire and keep it warm for uſe, when you ſerve it into Diſhes put into each Diſh a ſmall quantity of Roſa Solis: Obſerve you ſtir it with your Mollinet as you do Chocholate. Milk, and water, and Ginger-Bread, grated makes Liquor Like Chocolate.

A Liquor not Inferiour to Chocolate.

Take a ſufficient quantity of the Kernels of new Walnuts, and take the ſmall Rhine or Skin from them put them into a pan and dry them, ſo as they may be;

beaten to a fine Powder, then Searce the Powder through a fine ſearce, beating the Groſs till it become ſo fine as it may paſs the Searce; to every pound of the ſame Powder, add ſix Ounces of fine Sugar, one Ounce of Nutmegs, half a Dram of Saffron, all beat to Powder. Then take a pint of Milk, and half a pint of Water, and Boil for a ſmall time over a gentle Fire, and put thereto one Ounce and a half of the Powder; then take a ſmall quantity of the Liquor out and beat with a dozen of Eggs, adding thereto three or four ſpoonfuls of Cream, and put all together, and let it Boil for half an hour gently, then take it off and keep it hot for uſe; obſerving to uſe the Mollinet, as you did in Chocolate: I have known Hazl-Nuts uſed inſtead of Walnuts.

To make Ratefia.

Take a Quart of Brandy, a Quart of Spring-Water, a Pound of Sugar, an Ounce of Cinnamon, a Dram of Cloves, a quarter of a Pint of Orange-Flower water, put theſe into a Skillet, cloſe covered; and ſet it on a ſlow Fire till the Sugar is diſſolv'd; let it infuſe 24 Hours, then Strain it, and colour it with Cochineale; if you think it not ſtrong enough, put more Brandy to it.

To make Limonade.

Scrape into fair Water and Sugar, as much Lemmon-peel as you think convenient, then drop in a few drops of the Eſſence of Sulphur, cut in ſome ſlices of Lemmon, and put in ſome Water; this is extream cooling in hot Diſeaſes, and particularly in *Fevers*, much comforting and available to recovery.

A cheap Way to make Wine of all ſorts of Fruit, as Cherries, Gooſberries, Currants, Apricocks, Plumbs or the Like.

Take good Water, make it Scalding Hot, put it into the Marſh-Tub Scalding Hot to the bruiſed Fruits, let them infuſe an Hour, then draw it off, infuſe your Herbs, and Seeds, if bitter, half an Hour, if not, let it be an Hour: Then cool it as Wort is, and then put Treacle, Honey, or Sugar, what quantity you pleaſe,

or

or as you wou'd have it in Strength, then add ſome Yeaſt, and ſtirr it well together, and it will Work, then Barrel it : But I think it is better with cold Water, and makes a much brisker Wine.

Another cheap & profitable way to make Wine of Cherries, Goosberries, Plumbs, or any other like Fruits.

Bruiſe them in a convenient Veſſel, and put them into a Tub, ſuch as you Maſh Malt in to Brew with, having a Tap in it, put what quantity of Cold Water you think fit, or as you would have it, Strong or Small ; infuſe thoſe Fruits 15, or 18 Hours, then draw it off : If it be to keep, put ſome bitter Herbs, or Seeds in it for 2 or 3 Hours ; if for preſent uſe, put Balm, or any good Herb ; add to every 2 or 3 Pound of Treacle, Sugar, or Honey, if you would have it very ſtrong, and more Sweetning ; take Yeaſt to ſet it working as you do Ale, or Beer.

Note : This ſort of Wine is better than made of the whole Juice, becauſe it is lighter on the Stomach, digeſting better in all ſuch like Fruit-Wine

To make Rack.

Take a Gallon of Brandy, a Quart of tart Cyder, not Sower; of Lime Juice, half a Pint ; a Quart of Water, beaten Cinnamon, Nutmeg, and Ginger, of each a Quarter of an Ounce, White-Sugar-candy finely Beaten, 2 Pound : Mix all theſe well together, putting a Sop dipt in Honey into it.

To make Rum.

This Liquor is made in the Sugar Iſles, *&c.* after this manner. The Grindings and refuſe of the Sugar-Canes they ſteep 2 or 3 Days in fair Water ; then drawing off the Water, they boyl it, and keep Scumming it 'till no more Scum will riſe, then they put it in a Cask to ferment and Work 9 or 10 Days, in which time it gets a ſtrong Body ; then draw it off from the Setlings into other Casks ; put to it *Jamaica* Pepper, and a few ſweet-

Herbs, hung in a Bag in the Cask, and that gives it a curious Flavor.

To make Punch or Flip.

Take a Quart of Spring Water, half a Pint of Brandy, a little Nutmeg and Sugar, and a little Lime-Juice, or a Lemon, or Verjuice, and ſqueeze into it; mix them well together, and its done. For Flip 2 Quarts of good Ale or Beer, half a Pint of Brandy, a little Lemmon-juice, Nutmeg and Sugar mixt together, and it's done. You may make either ſort Stronger, by adding more Brandy, or Weaker by putting more Water, or Small Beer to them. Verjuice is as good as Lemmons, or better. Strain your Punch, or Flip through a Flannel Bag, and it will be very clear and fine.

Cyder to make Drink like Canary.

When you Bottle your Cyder put 2 Spoonfuls of Spirit of Clary into it, (it's Sold by ſome Apothecaries) and let it ſtand ſome time, and a well excerciſed Pallate cannot tell the difference.

I am apt to think that if 2 or 3 Spoonfuls of Brandy, and a little Loaf-Sugar were put into it, would make it ſtill better.

Tryon's *Way of Brewing Ale and Beer.*

Firſt LET your Water be Pure Clear River Water, becauſe River Water is Richeſt in Spirit, and Fatter than Fountain, Well, or Pond Water, which by ſtanding, are apt to looſe their Spirit.

Secondly, Put good Malt and Hops into the Maſh-fat, and your whole quantity of Water, whether put in at once, or at two ſeveral times, let be but juſt ſcalding-hot upon them, and then ſtir them well together, and let them ſtand ſo long as till the Water extracts the Virtue from the Malt and Hops, and then draw your Wort off. If

cold

cold Water would draw out the Virtue of Malt and Hops, it would be better, but it will not, therefore ſcalding muſt be uſed. Boyl not your Hops, for thereby the Balſamick, and Fragrant Oyl and Spirit is loſt: This you may obſerve in other Herbs, as Tea, and the like, which they do not boyl, but pour ſcalding-hot Liquor on it which makes it more Fragrant, and hinders its becoming Flat, Diſpirited, and unpleaſant in Taſte.

Thirdly, Boyl not your Wort after it's made, for that adds nothing to the Quantity, but leſſens its pure Balſamick Virtue and Goodneſs. If you ſay you boyl the Wort to leſſen the Watry Parts, that you may remedy by putting leſs Water or ſo much the more Ingredients. If you ſay without this boyling Ale or Beer will not keep, you miſtake, for all liquid things keep long, or decay, according to the quantity of Spirit that is in them; and by reaſon boyling diminiſhes that Spirit, 'tis manifeſt ſo much the ſooner the Drink will decay, and grow Sour, or Hard, and this I impute chiefly to the boyling. If you ſay boyl'd Beer will keep 8 or 9 Years, that is true, but that proceeds from the vaſt quantity of the Malt and Hops that is in it, not from its boyling, for boyling will not preſerve it a quarter ſo long if it wants a due proportion for that 9 Years keeping of Mault & Hops. So it is that indeed, which does effect the work; Excellent pure Ale I have drank at a Houſe in *York-ſhire*, as clear as White-wine and as ſtrong; I thought it to be about 3 Weeks old, and it was 14 Months old and the party ſaid it would keep as many more in that goodneſs, the which was imputed to the quantity and goodneſs of the Malt they put in it; for, (ſaid the Party) put in but half the Malt and it will not keep a quarter ſo long, the party told me he never boyl'd his Worts becauſe boyling diminiſhed the Spirits and weakened the Liquor.

Fourthly, In Working, let the quantity of your Yeaſt be according to the proportion and quantity of the Liquor, and let it not be wrought upto hot, but as cool as poſſible to

be

be done; by this means the Fermentation will be gentle and naturally and the Drink keep longer; and being thus gently performed it will cease of its own accord when it comes to a Fineness, whereas being too hot it will cause a violent Fermentation, loose its Balsamick Spirituous quality and quickly grow Hard, or Eager, and Sower, and the longer this violent Fermentation continues, by so much the more its weaken'd and turns Sower.

Fifthly, The time of Working being over, the Vessels containing the Drink should be very cool, that the Air may not easily penetrate, because heat is apt to put all Fermented Liquors on the Fret which produces Staleness and Sourness. The time of keeping any Liquor of this kind is according to its strength in Malt, and Tincture of the Hops; Coolness, and Quietness, ought to be minded, for great Knocks cause Fretting as that of Coaches, Carts, Thunder, Lightning, Drums, Canons, &c. cause Fretting and Sours the Drink as well as the heat of the Ambient Air, so that coolness and quietness is very requisite to the place you keep your Drink in.

Sixthly, The Age I cannot determine; for that is according to the quantity and strength of the Spirit its Endued with; new Liquors, if once Fine, are wholsomer than old and stale; and therefore being once Fine, tho' never so new are fit to Drink. Mild Drink if Fine opens obstructions, purifies the Blood, keeps the Body soluble, and because of the Hops is Diuretick, good against Stone, Sand or Gravel, Ale is good for Consumptions makes lean Folks fat. Beer strong of the Hop is good against Gout, Scurvy, Dropsy and Stone.

The Brittish Mercury, containing the best News, and gives Account of Exchange Bills, Assize of Bread, course of Exchange. And you may have your Houshold-Goods or Houses Insur'd: paying 2 *s.* 6 *d* beforehand, and 2 *s.* 6 *d.* quarterly. The Office is at *Paul's* Coffee-house, adjoyning to *Dean's*-court, at the West end of St. *Paul's*: *Note*, This News is as good as the Postman or other Papers, and will be left for any, where they please, in *London*, 3 times a Week. *FINIS.*